

COMMERCE

APRIL 1958 35c

Published since 1904 by the Chicago Association of Commerce and Industry



Singing Businessmen — See Page 5

New "Break Through" in Automation

The Challenge to Business Leadership

WTTW — A New Approach to Telecasting

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Insist on the **EXTRA SAFETY**
A-B combination starters provide



**SAVE
INSTALLING TIME
TOO!**

Install modern Allen-Bradley Bulletin 712 combination starters instead of separate starters and disconnect switches. For only with both units in one cabinet can you have *positive* "safety" protection against a "hot" motor starter.

The Bulletin 712 is "safety engineered"—the cabinet door cannot be opened unless the operating handle is in the "OFF" position—and it can be locked "OFF" with up to three padlocks. And, you can see that the starter is "dead" because *all three* contacts of the disconnect switch are plainly visible when in the "OFF" position. Also, the incoming line terminals are covered—there's no chance of accidental contact with a "hot" connection. The Bulletin 713—with the same "safety" design—uses an ITE circuit breaker.

Allen-Bradley combination starters take less time to install than separate units . . . and this saves money. Insist on A-B Bulletin 712-713 combination starters. Write for catalog, today.

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CONTROL**



Chicago's Outstanding Electrical Distributor



REVERE ELECTRIC SUPPLY CO.

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"Jack,
you're the
world's best
doughnut-hole
salesman!"

Bringing two purchasing agents together over a friendly lunch resulted in an unusual sale.

It all started at the plant of an appliance manufacturer where Jack Hammond, an Inland sales representative, watched as a 12" diameter hole was blanked out of a sheet of steel. Noting carts filled with the punched out discs, he asked what was done with them. "We sell them for scrap," was the answer.

A few days later, Jack was in the plant of another customer . . . a metal specialty fabricator. Here, he saw a cup being drawn from steel circles . . . and got an idea. After cross-checking specifications, he found

that the scrapped blanks of customer "A" would work perfectly for customer "B."

Getting these customers together at lunch had this happy result: one, now, obtains a much better price for his blanks . . . the other has a steady source of pre-shaped steel circles at a price that reduces his production costs over \$6,000.00 a year.

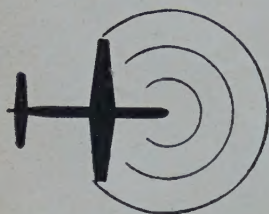
We like to feel that Jack's action in this instance is typical of all Inland sales representatives. We think that their interest goes beyond just "selling steel." We hope you do too.

INLAND STEEL COMPANY

30 West Monroe Street • Chicago 3, Illinois | Sales Offices: Chicago • Milwaukee • St. Paul • Davenport • St. Louis • Kansas City • Indianapolis • Detroit • New York



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FLEET...

Enjoy more comfort,
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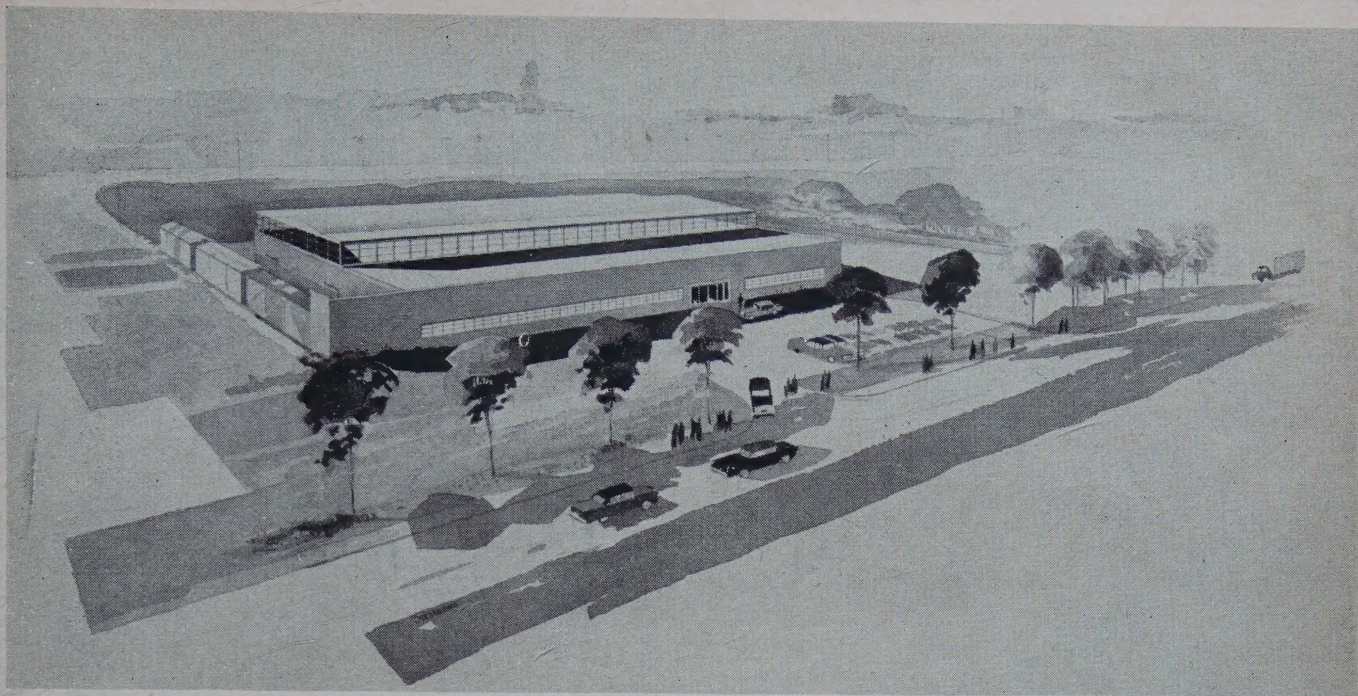
statistics of...

Chicago Business

	February, 1958	January, 1958	February, 1957
Building permits, Chicago.....	1,493	1,377	1,178
Cost	\$ 18,941,606	\$ 16,344,771	\$ 22,226,047
Contracts awarded on building projects, Cook Co. cost		\$ 59,441,000	\$ 93,433,000
(F. W. Dodge Corp.)			
Real estate transfers, Cook Co.	4,254	4,617	5,580
Consideration	\$ 3,943,712	\$ 4,016,357	\$ 5,782,587
Bank clearings, Chicago	\$ 4,307,022,192	\$ 5,219,444,701	\$ 4,408,482,381
Bank debits to individual accounts:			
7th Federal Reserve District	\$25,566,000,000	\$29,782,000,000	\$26,375,000,000
Chicago only	\$12,982,420,000	\$15,236,703,000	\$12,830,710,000
(Federal Reserve Board)			
Bank loans (outstanding) Chicago weekly reporting banks	\$ 3,838,000,000	\$ 4,009,000,000	\$ 3,803,000,000
Midwest Stock Exchange transactions:			
Number of shares traded	1,740,410	2,097,426	1,748,000
Market value of shares traded	\$ 58,406,369	\$ 70,647,353	\$ 63,749,121
Railway express shipments, Chicago area ..	711,149	770,953	863,209
Air express shipments, Chicago area	62,623	72,954	75,192
L.C.L. merchandise cars, Chicago area	10,012	10,561	14,078
Electric power production, kwh, Comm. Ed. Co.	1,636,098,000	1,629,139,000	1,629,733,000
Industrial gas sales, therms, Chicago	15,528,338	15,745,853	17,485,182
Steel production (net tons), metropolitan area	1,110,800	1,287,500	1,772,400
Revenue passengers carried by Chicago Transit Authority lines:			
Surface division	33,511,666	36,553,184	39,197,535
Rapid transit division	8,282,339	9,379,650	9,071,665
Air passengers, scheduled, Midway and O'Hare airports:			
Arrivals	350,998	415,317	340,257
Departures	360,441	424,471	364,096
Consumers' Price Index (1947-49=100), Chicago	126.2	126.1	121.5
Receipts of salable livestock, Chicago	340,524	450,355	374,605
Unemployment compensation claimants, Cook and DuPage counties	84,963	69,397	39,007
Families on relief rolls:			
Cook County	27,582	25,656	23,639
Other Illinois counties	19,595	17,973	15,750

May, 1958, Tax Calendar

Date Due	Tax	Returnable to
1	Renew Chicago business licenses which expired April 30, 1958	City Collector
1	First installment of 1957 Real Estate Taxes	County Collector
1	Personal Property Tax for 1957	County Collector
15	Illinois Retailers' Occupation Tax and MROT return and payment for month of April	Department of Revenue (Illinois)
15	If total Income and Social Security Taxes (FICA) withheld from employee, plus employer's contribution in April, exceed \$100, pay amount to	Authorized Depository



Rendering of New Plant now under construction for The C. P. Hall Co. of Illinois

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73rd Street and Cicero Avenue

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FOR MODERN PLANTS**

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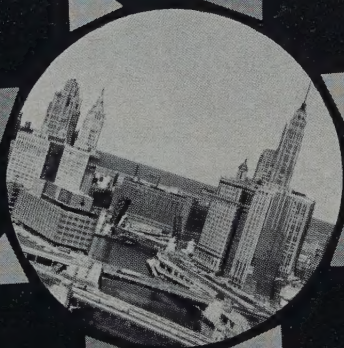
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CHICAGO BUYERS' GUIDE

published by the Chicago Association of Commerce and Industry

twenty-third edition / 1958



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**Our
Cover**

The happy gentlemen on our cover have heard about the business "recession" but it doesn't deter them from lifting their collective voices in song. As a matter of fact they get together at least once a week just for this purpose. They are all members of the Glee Club of the Chicago Association of Commerce and Industry.

From left to right, the singers are: Gordon Crockatt, a hotel man who joined the glee club in 1939; John C. Donnelly, a retail druggist and a member since 1947; Thomas W. Barnard, in the furs, sales and service field and a member since 1945; Saul B. Kramer, a stock broker and a glee club member since 1932; Edward J. Flannery, also a stock broker and a glee club member since 1940; John Laughlin, an electrical equipment manufacturing representative and in the club since 1955; Carl H. Ruether, a chemicals and disinfectant distributor and a glee club member since 1931; and Clyde M. Joice, an advertising agency man and the veteran of the group, who joined in 1916. Gregory Konold (at the piano) is the director of the glee club.

In addition to its weekly songfests, the glee club sings for Association luncheons, convention banquets, the Good Fellow Annual Sing, T.V.; and each year has its own concert. You too can join the merry group. At present the club is 66 members strong but would like to have over a hundred members. If you are interested in joining call Norbert Hudoba at the Association office (FR 2-7700). If you prefer to just listen to some good singing, plan on attending the glee club's 46th annual concert at Thorne Hall, Friday, May 23.

**In this
issue ...** Thomas H. Coulter leads off this issue of **COMMERCE** with "The Challenge to Business Leadership" on page 13. On page 15 Phil Hirsch discusses the booming barge business.

Chicago has a unique television station, WTTW. June Blythe tells all about it in her piece, page 16. Our Editor, Alan Sturdy, went to California to see the latest developments in making a production line automatic and tells about them on page 20. How has Chicago grown? Charles F. Willson gives the facts and figures in his article, page 22.

COMMERCE

Magazine

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April, 1958

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Number 3

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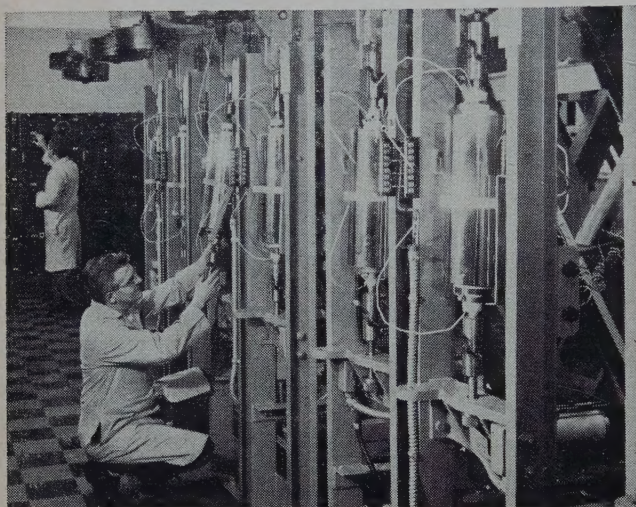
Industrial Miracle:

7 $\frac{3}{4}$ -cent steel

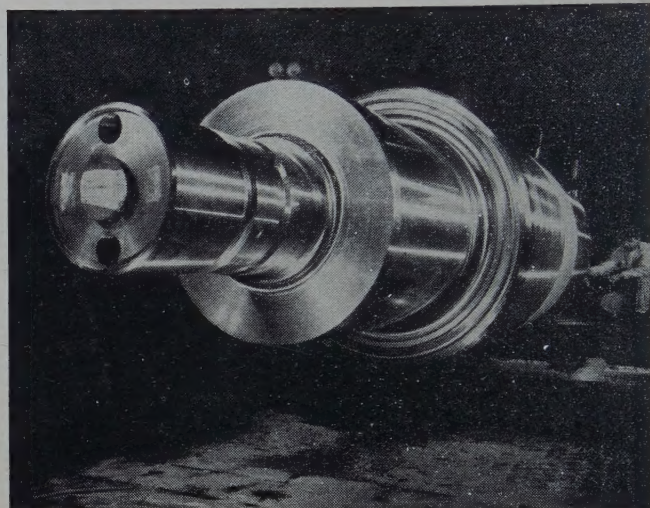
MOST MEN AND WOMEN would have no earthly use for an ingot of steel. So you may not have the remotest idea of what steel costs.

Actually, for all of the steels that it ships, United States Steel gets an average of 7 $\frac{3}{4}$ cents a pound. Less than a dime still buys a commodity whose manufacture requires billions of dollars worth of equipment, the skills of hundreds of thousands of men, and mountains of raw materials gathered from many parts of the world!

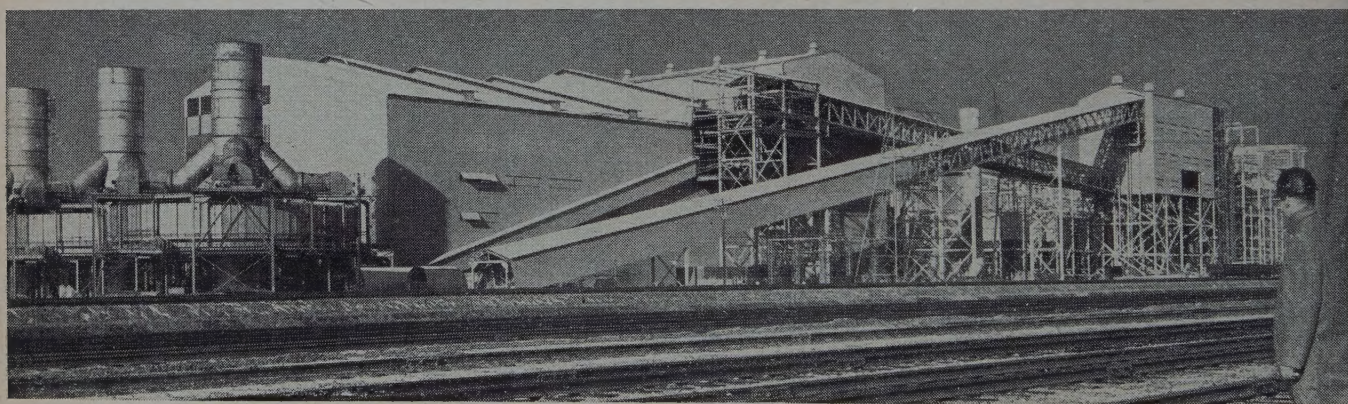
Since steel in some form touches your life every day, we think you'll be interested in what U. S. Steel is doing to keep steel the cheapest of all common metals.



In laboratories at U. S. Steel's new research center at Monroeville, Pa., we are making today's steel a better value. There, too, we are developing steel to withstand heat from atmospheric friction as no other metal can, for supersonic flights of the future. A long-range program is aimed at developing a metal twice as strong as any now existing. Here, research men are working on new high temperature alloys.



To make steel cheaper to use, U. S. Steel supplies it in hundreds of convenient forms, to thousands of individual plants which process, fabricate and assemble steel products for sale. However, even in a product that is mostly steel, the cost of the steel is one of the smallest factors. An unusual order for steel was this plate mill roll, the world's largest, forged and machined at a U. S. Steel plant.



To hold costs and prices at the lowest possible level through increased operating efficiency, U. S. Steel is continually improving its facilities. For example, shown above is one of U. S. Steel's new sintering plants scheduled to start operation in the Fall of 1958. Upon completion, the plant will produce 15,000 tons of sintered ore daily for U. S. Steel

blast furnaces in the Monongahela Valley. In the face of mounting costs of new equipment and inadequate depreciation allowances, we have spent three and one-half billion dollars on improved facilities since 1945. Modernization programs in the Pittsburgh and Chicago districts, and in the West, will soon increase capacity over two million ingot tons.

Watch the United States Steel Hour on television. See your local newspapers for time and station.



United States Steel

The Editor's Page

Help "Share In America" Drive

Between May 5 and 10 there will be waged in the Chicago metropolitan area the most intensive campaign to sell U. S. Savings Bonds by payroll deduction since World War II. A committee of 28 distinguished leaders, chaired by Meyer Kestnbaum, president of Hart Schaffner and Marx and special assistant to President Eisenhower, has been organized to spearhead the campaign.

Under the banner of Chicago "Share In America," employers throughout the area will be asked to sign up thousands of additional payroll savers through person to person solicitation.

The aim of the campaign is threefold:

1. To encourage thrift and the habit of saving through regular purchase of U. S. Savings Bonds.
2. To create additional awareness of savings bonds as a means of achieving greater opportunities and security.
3. To spread as widely as possible the base of the public debt.

An important fourth benefit of immediate and direct interest to business has been pointed out by Secretary of the Treasury Robert B. Anderson. "Savings bonds," he said, "not only provide personal security for their owners; they release other funds in the economy for private financing uses—a function never more important than now when capital is so critically needed for the exploration of new areas of science and in various other ways to make the best possible use of our resources.

"We must never forget that real capital cannot be created by any form of monetary magic—it must be saved. Individual savings, therefore, are one of the major responsibilities of citizenship under present world conditions."

Employers, by giving their fullest support to the "Share in America" campaign next month, can help their employes, their country and the economy.

Statistics That Mislead

The battle over renewal for five years of the Reciprocal Trade Act, which has been requested by the administration, is now in full progress. As is to be expected, when such a complicated subject is a matter of controversy what Secretary of Commerce Weeks has described as half-statistics, half-arguments and half-truths rapidly gain currency. Among these is that the United Kingdom is a horrible example of lack of reciprocity.

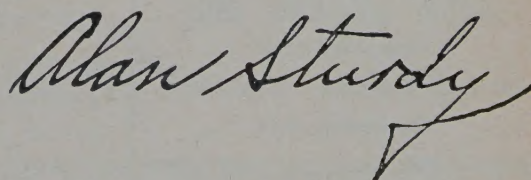
One measure of tariff changes is the relationship of

a country's custom collections to the value of its imports. Using this measure, the U. S. ratio dropped from 15.6 in 1937 to 5.9 in 1956. The 1956 figure for the United Kingdom was 29.5 per cent, representing a substantial rise from the 1937 figure of 21.3 per cent.

On their face, these figures are a strong argument against reciprocity as far as the United Kingdom is concerned. But the answer lies deeper. Secretary Weeks points out that the United Kingdom taxes rather heavily alcoholic spirits, tobacco and petroleum products, just as we and most other countries do. The United Kingdom, which imports a high portion of its tobacco and petroleum products, finds it administratively convenient to collect the tax on these products at the time of import. Thus the United Kingdom excise tax on import spirits, tobacco and petroleum products show up as customs receipts. The United States, on the other hand, collects similar taxes as internal excises and they therefore do not show as tariff.

During and following World War II, the United Kingdom sharply increased many of its taxes, particularly those on tobacco, which account for nearly two-thirds of the British customs receipts. This fact, together with the nature of the British system for collecting these levies, according to Secretary Weeks, accounts for the rise in the British percentage between 1937 and 1956. In fact, when the United Kingdom duty collections on spirits, tobacco and petroleum products are eliminated so that the percentage for the U. S. and the U. K. are figured on the same basis, the United Kingdom's percentage of duty to value of imports was 2.3 for 1956 against more than four per cent in 1937. Thus the United Kingdom's rate has not only been reduced but it still is less than half that of the United States.

It would be hard to find a more glaring illustration of the dangers inherent in evaluating the whole reciprocal trade program solely by using limited statistics. Rather, the program should be judged on its principles, which remain just as sound today as they were when it was first adopted more than 20 years ago. This country still is the world's greatest creditor nation and still has a \$6.5 billion excess of exports over imports. The gap currently is being bridged largely by gifts. The only sound long run solution is greater imports and freer trade on a reciprocal basis throughout all the world.



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NEW YORK

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Here...There... and Everywhere

• *Port Chicago Sailings For 1958*

— The Great Lakes Overseas Freight conferences foresee another record year in overseas sailings from Chicago area ports in 1958. Sailings are expected to increase to 373 from 333 last season. In addition to regular sailings, 65 tramp ship sailings are scheduled from Great Lakes ports compared with 40 during the 1957 season. This year's season will begin some time in the last ten days of this month.

• *Chicago Health Fair*

— Mayor Daley has proclaimed April "Community Health Month." As a part of the program for the month, the Junior Association of Commerce, in cooperation with the Museum of Science and Industry and the Welfare Council of Metropolitan Chicago, will sponsor a week-long Health Fair at the Museum. Exhibits from various health agencies in the Metropolitan area will make up the major part of the fair which will be held from April 19 through April 27.

• *New Computer for Edison*

— A computer device that will measure the moment-to-moment use of electricity by the 1,940,000 customers in the Chicago area — and simultaneously regulate the output of dozens of generators to meet the exact demand — is to be installed by Commonwealth Edison Company according to Willis Gale, chairman of the utility. The installation will be among the first in the country combining the complete computer and generation control elements. The device will economically distribute production among the 12 Edison generating stations.

• *Music Stores in Tune*

— Net sales of the typical music store operator in 1956 were \$75,260 according to the latest Cost of Doing Business survey prepared by Dun & Brad-

street, Inc. The survey also showed gross margin earned by the average music store in 1956 was 35.8 per cent of net sales. After expenses totaling 33.8 per cent were deducted, a net profit of 2.5 per cent was realized before federal and state income taxes. Salary of the owner was the largest expense item, costing 9.6 per cent of net sales. On a volume of \$75,260, the owner drew \$7,225 in salary and earned \$1,882 in net profit for a total return of \$9,107 in 1956.

• *New Fibre Makes Debut*

— Darvan, the new synthetic fiber, has made its debut into the men's clothing field. It's a "completely new composition of matter," according to scientists of B. F. Goodrich Chemical Company. Strangely, when B. F. Goodrich chemists started the search that led to Darvan, they were looking for a new material to use in tire cords. They found a new material all right, but not for use in tires. Instead they found a material that eventually resulted in a fiber that can be adapted for almost any type of wearing apparel.

• *Consumer Prices Continue Rise*

— Consumer prices hit a new high for the 22nd consecutive month in February, 1958. The 0.3 per cent rise in the retail price level brought the all-items index for the U. S. to 106.6 (1953 equals 100), 2.9 per cent above year ago levels. Purchasing power of the consumer dollar declined to 93.8 cents (1953 dollar equals 100 cents), which was 0.2 cents below the January, 1958, value and 2.7 cents below February, 1957.

• *New Directory*—"The 1958 North Suburban Street Address Directory,"

listing more than 144,000 families and businesses, shows an increase of approximately 10,000 listings from last year's volume. The new book is the fifth annual edition to be pub-

lished by The Reuben H. Donnelley Corporation. It takes in an area of about 300 square miles north of the Chicago city limits. Besides the 71 towns and communities covered in the previous volume, listings for the new suburban community of Elk Grove Village will be included for the first time.

• **Home Ownership Up**—Fifty-four per cent of U. S. families own their own homes today, as against 44 per cent in 1949, the National Industrial Conference Board reports.

• **Brain-Power Growing** — Within the short span of six years, the electronic computer industry has grown from zero to 936 installations, according to John E. Johnson, vice president of marketing for the Data-matic division of Minneapolis-Honeywell. He told members of the Controllers Institute of America that these installations represent \$19 million a month rental, or one billion dollars of sales value. Citing recent industry reports, he said there are nearly 15,000 companies who are potential customers for large and medium scale systems.

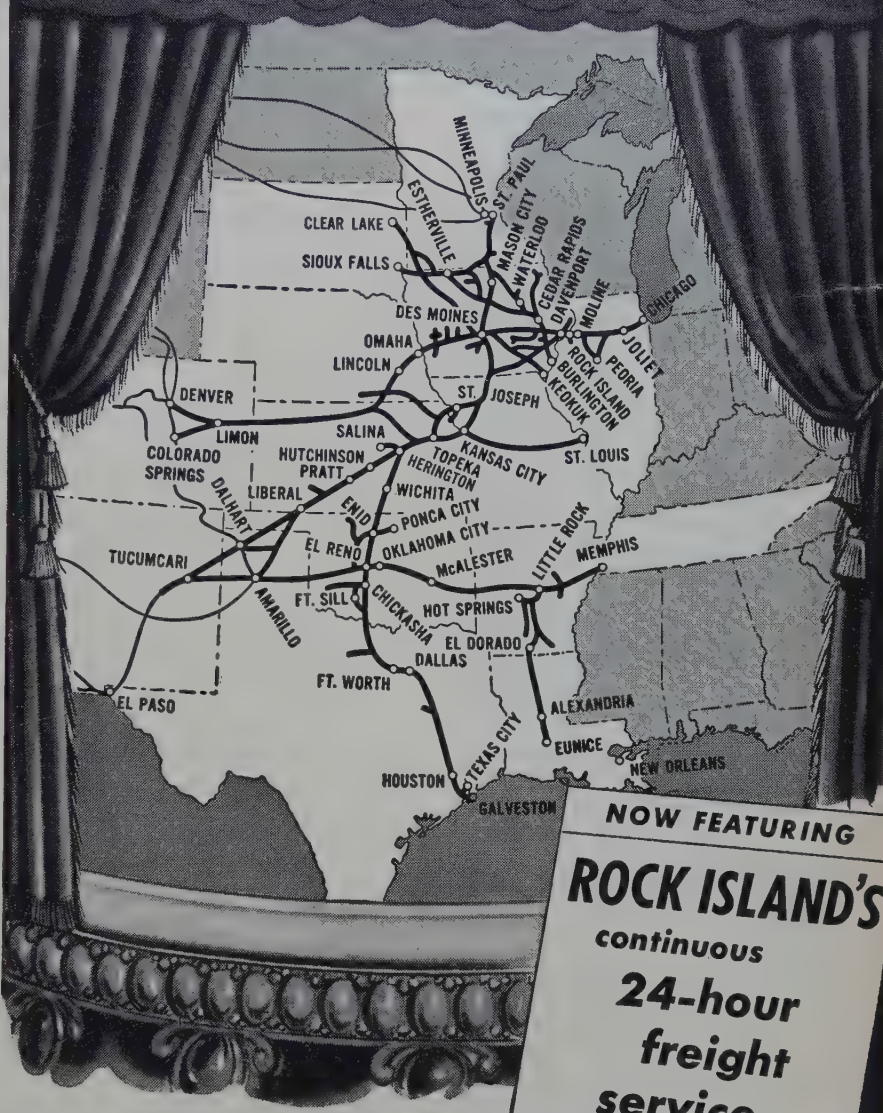
• **Well Fed!** — Now celebrating its 50th year, the prepared livestock feed industry has risen to ninth largest in the nation and, according to Nutrena Mills, will double its present production volume of nearly 40 million tons per year in another 20 years.

• **Costly T-R-A-D-E** — The five costliest letters in the alphabet are T, R, A, D, and E, according to a survey by the Sheaffer Pen Company's handwriting consultants. Those letters are the most likely to be illegibly written and misread, causing mistakes that cost business many thousands of dollars annually.

• **Machines 'On Time'** — The installment financing of machinery and equipment has spread into almost 100 different industries, according to C.I.T. Corporation. Some of the fields in which "buy now, pay later" plans have won wide acceptance: highway construction, packaging, machine tools, materials-handling.

• **Wage Negotiations** — Changes in the wage rates of several Chicago building trades have been announced.

Mid-continent States Theatre



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OUTER BELT**



Trends... in Finance and Business

• **Boom for Credit Unions** — Credit unions in Illinois and throughout the country continued their steady post-war growth during 1957. There are now 1,583 credit unions in the state with over 783,000 members, reports W. H. Brietzke, managing director of the Illinois Credit Union League.

Last year, 132 of the nonprofit savings and lending societies were organized in Illinois — more than in any other state in the nation. Some 126 were chartered by the State Auditor of Public Accounts and six by the Bureau of Federal Credit Unions. Nationally, 1,372 new credit unions were established in 1957. There are now 18,764 credit unions in the United States, 4,219 in Canada, and 893 in South America, Central America, and the West Indies. Illinois led the Western Hemisphere in number of credit unions.

Credit unions function among groups with a common bond, such as people working for the same employer, belonging to the same club or labor union, or attending the same church. Members pool their savings and make loans to each other when needed. Loans made in 1957 by Illinois credit unions amounted to nearly \$245 million — an increase of approximately \$26 million over 1956. Debt consolidation and automobile financing were the two most common reasons for borrowing, he said, with the average loan being in the neighborhood of \$400.

Savings, too, hit an all-time high, an aggregate of over \$315 million being invested by Illinoisans in their credit unions. Total assets went up by about \$40 million, attaining a record \$329 million.

The large credit union is still the exception rather than the rule, according to the Illinois Credit Union League. Only about 65 credit unions

in the state have assets in excess of a million dollars. Largest unit is the \$12.5 million Decatur-Wabash Credit Union which serves some 11,478 employees of the Wabash Railroad at Decatur. In the Chicago area, a leading credit union is Union Teachers, with \$6.25 million in assets owned by 7,150 members of Local 1 of the American Federation of Teachers.

• **Men and Their Clothes Buying Habits** — Do men trust clothing salesmen? How important are style and fashion to men when buying clothes? What is the role of apparel advertising? Do men judge a store by its brands or vice versa?

To determine the relative importance of these and other factors that influence the purchase of male apparel, the Chicago Tribune recently surveyed the men's clothing market in metropolitan Chicago. Findings are summarized in a booklet, "Men's Clothing Survey," published by the Tribune's retail display advertising division. Highlights of the study, released by Paul C. Fulton, manager of the division, show that:

Two out of three men enjoy shopping for clothes. However, only a few of them feel that the salesman is a valuable guide to the purchase and selection of clothing. Instead, most men think of the apparel salesman as an aggressive mover of merchandise who isn't "on the customer's side." As a result, many men (almost half of those interviewed) take their wives along when they go shopping. Because their apparel isn't a subject men discuss with each other, the typical man cannot go to his friends for guidance, so he chooses his wife as his personal clothing counselor, Fulton said.

It is difficult to separate the influ-

(Continued on page 30)

Listed 1929—Midwest Stock Exchange
(formerly Chicago)
1937—New York Stock Exchange
1949—San Francisco Stock Exchange

No Bonded Indebtedness

Shares Outstanding 12/31/57

Common Stock, 3,740,570 shares

4% Cumulative Preferred Stock, 86,490 shares

ABBOTT LABORATORIES

Manufacturing Pharmaceutical Chemists since 1888

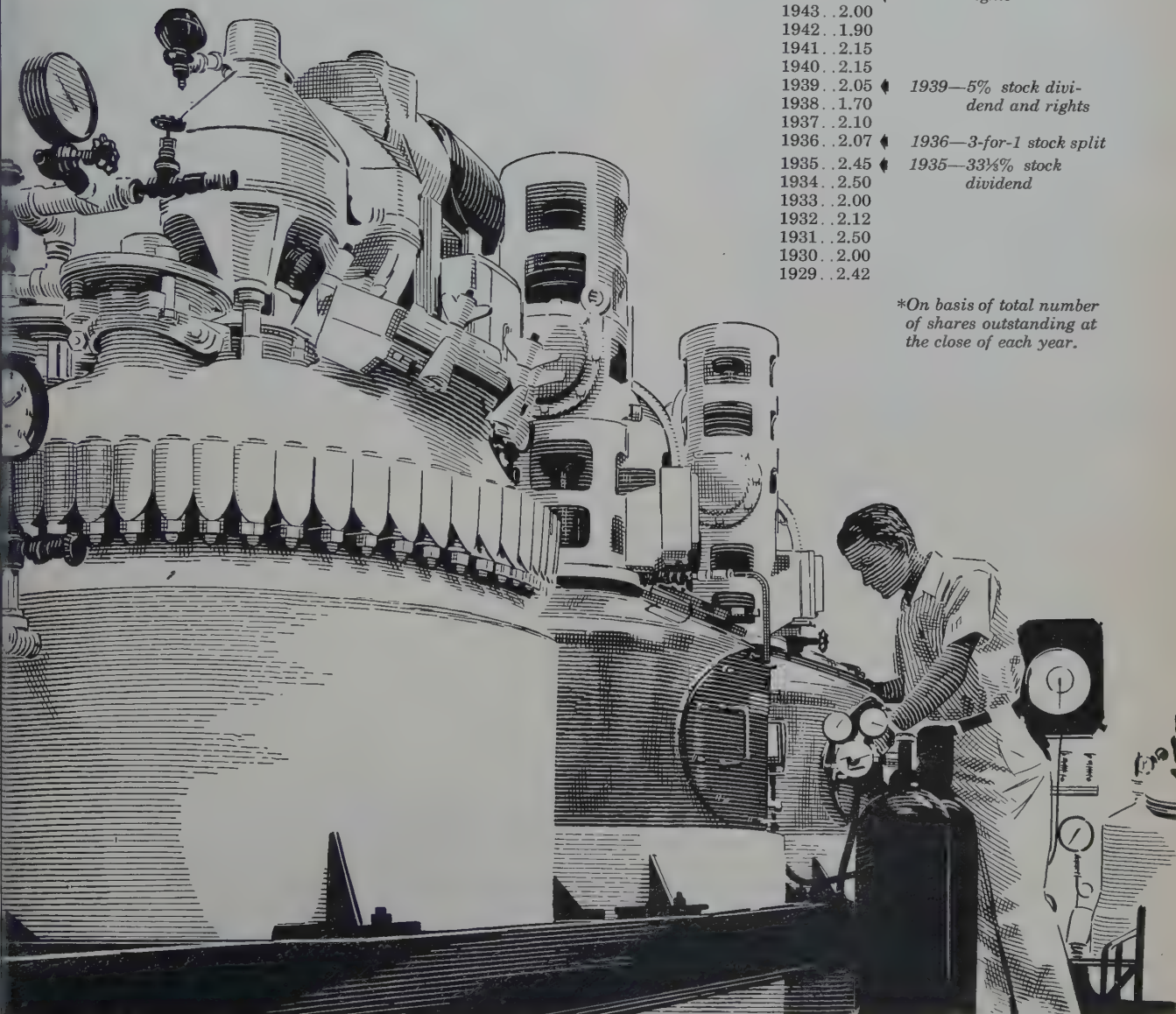
NORTH CHICAGO, ILLINOIS

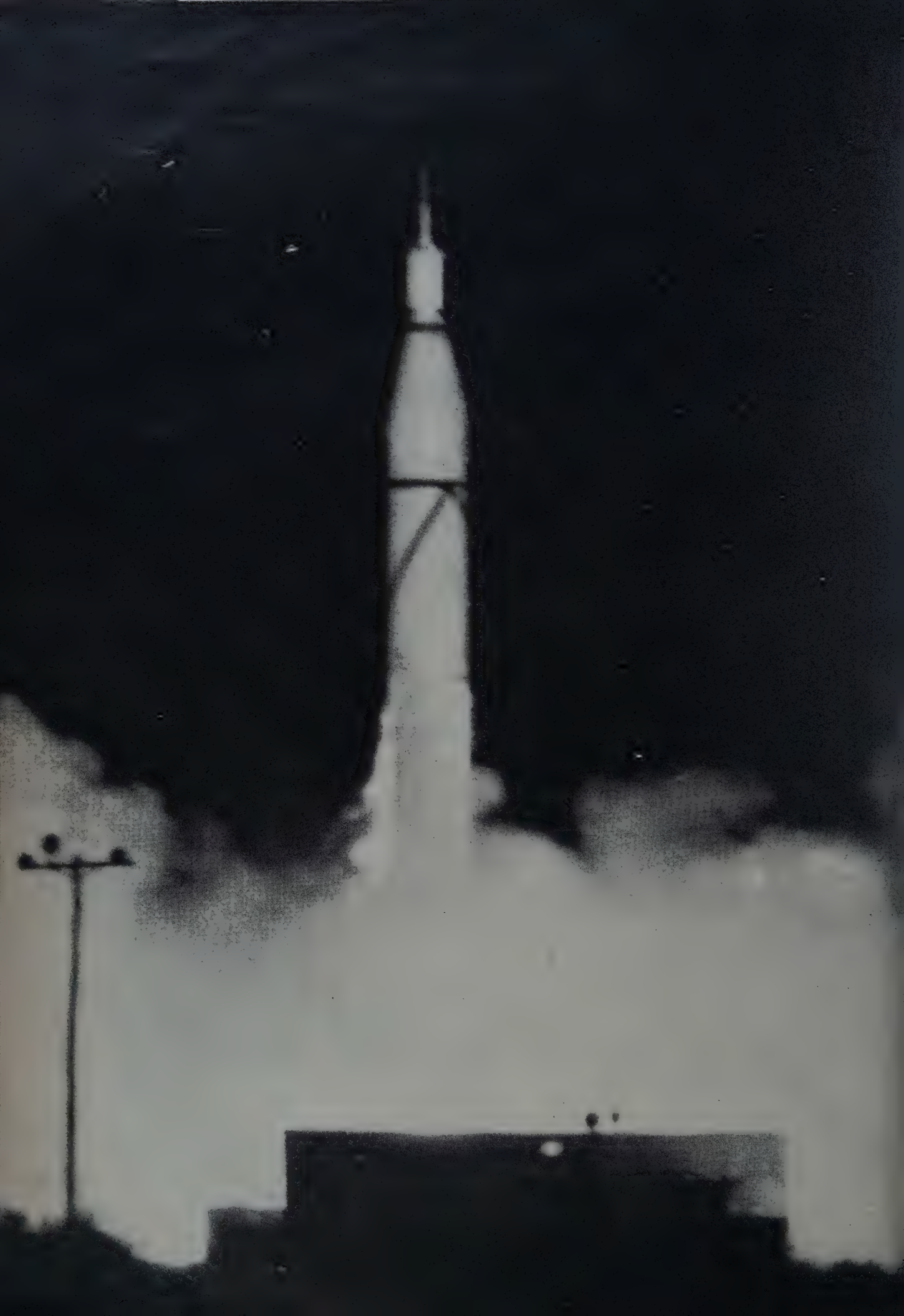
Dividends paid ★

*An unbroken record of
dividends*

1957	.1.80	
1956	.1.80	
1955	.1.80	
1954	.1.85	
1953	.1.80	
1952	.1.95	
1951	.1.95	◆ 1951—rights to buy preferred
1950	.1.85	
1949	.1.80	◆ 1949—2-for-1 stock split
1948	.3.25	
1947	.2.40	
1946	.2.88	◆ 1946—2-for-1 stock split and rights
1945	.2.20	
1944	.2.20	◆ 1944—rights
1943	.2.00	
1942	.1.90	
1941	.2.15	
1940	.2.15	
1939	.2.05	◆ 1939—5% stock dividend and rights
1938	.1.70	
1937	.2.10	
1936	.2.07	◆ 1936—3-for-1 stock split
1935	.2.45	◆ 1935—33⅓% stock dividend
1934	.2.50	
1933	.2.00	
1932	.2.12	
1931	.2.50	
1930	.2.00	
1929	.2.42	

**On basis of total number of shares outstanding at the close of each year.*





The Challenge To Business Leadership

By **THOMAS H. COULTER**

Here are some cold hard facts "that should motivate us all to 'run scared' as we have never run before"

WHAT is "national strategy," and, if we have any, what is it? Strategy means "the mobilization, integration, and prudent management of the political, economic, educational, technological, industrial, scientific, cultural, and ideological resources of the entire nation in order to secure the objectives of peace, justice, and well being."

Accepting this definition en totum, we have no national strategy. Taking the definition in part, we have some strategems. Between strategem and strategy . . . like the distance between apogee and perigee . . . there exist great separations of thought and understanding. In the world of today and tomorrow, a strong guiding light of national strategy is essential to combat the doctrines of Marx, Lenin, Stalin, and Khrushchev which spell out Soviet strategy and which are plain to see and understand around the world.

How do we develop such a national strategy? Through meetings

The author is chief executive officer of the Chicago Association of Commerce and Industry. This article has been condensed from his summary presentation at the National Military-Industrial Conference.

◀ The successful launching at Cape Canaveral of Explorer I. "So there it is and here we are, but where do we go from here?" asks the author.

United Press Photo

where leaders in every facet of American life express their views and suggest courses of action.

What are some of these views and courses of action? To me they fall into the following general categories: education, manpower, industrial production, research, weapons, ideology, economics, communication, freedom, organization, and free enterprise. Most important of all these is education because it underlies the solution to almost every basic problem discussed.

Cites Deficiencies

While it is generally agreed that America, overall, is the best educated nation, concern has been expressed about deficiencies in certain types of education, particularly engineering and science. It has been pointed out that Russia is now ahead of us with 1,476,000 scientists and engineers, compared to our 1,328,000. Furthermore, Russia graduated 134,000 engineers and scientists in 1957 compared to 92,000 for the U. S. A. This comparison will persist for at least five more years before it improves.

While the United States is educating or exposing to education a far greater total number and higher percentage of her population at the

college level, thus supplying a greater total potential amount of brain-power, Russia is using education specifically as an instrument for furthering national objectives and strategy in her domestic economy, foreign trade, and technical and military aid to other countries.

For example, while ten million Russians are studying English, less than eight thousand Americans are studying Russian. But it is their serious attention to training ample numbers in each of many foreign languages which is so significant as a part of their strategy. These courses are in the languages of the Far East, South East Asia, India, Middle East and Africa.

While Russia's progress in technology and education is alarming, we are better able to cope with this competition because of our tremendous lead up until now. In manpower, however, we have a disadvantage about which we can do nothing until the next generation. Why? Russia's population is 20 per cent larger than ours . . . over 200 million to 170 million. And more important, in the critical age group of 25 to 45 years, we had 47 million in 1955 and Russia had 59 million . . . an advantage of 12 million. By 1965 their advantage in prime manpower will have increased to more



Thomas H. Coulter

than 16 million. It appears that the Russians did their homework in spite of the depression of the "inconceivable thirties" and any preoccupation with World War II.

What does this manpower shortage mean in the strategy of the cold war? A major objective of Soviet strategy is to surpass our industrial production. They have gone on record to achieve this in the mid 1970's. They say, "we will beat you industrially." Mr. Krushchev as a sequel goes even further and says "we will bury you." These threats are not too frightening when you realize that Russia produces less than half as many goods as our nation but, if present relative rates of growth continue . . . roughly six per cent per year for Russia compared to three per cent for us . . . some two decades hence the Soviet gross industrial output will surpass ours.

Economy Most Productive

Americans know they have the most productive economy of all history. With six per cent of the world's population we own half of the world's total wealth and consume 60 per cent of the world's production. It seems almost inconceivable that the Soviets can ever equal, let alone surpass us in science, technology and industry. But is this really inconceivable? Let us examine the record and go back 30 years to 1928

when Stalin announced the first Five-Year Plan which started the forced industrialization of Russia.

At that time the United States was the undisputed scientific and technological leader of the world. Soviet production was but a tiny fraction of our own. Their coal production was less than two per cent of ours; steel production less than ten per cent of ours; and electric power output less than five per cent of ours. Anyone predicting at that time the Soviet challenge to American industrial supremacy would not have been taken seriously.

What has happened in 30 years? Today Soviet coal production has increased from two per cent of ours to about equal. Petroleum output has increased from ten per cent of ours to 26 per cent, and steel production has jumped from less than ten per cent of ours to 50 per cent. Power production has gone from five per cent of ours to 29 per cent. All these records are impressive but particularly those of petroleum and steel when it is considered that the U. S. A. produces and consumes more than the combined total of these two industries for the rest of the world. How have they done this? At the cost of fearful sacrifices to their standard of living and deprivation of their people. And as their industrial production began to soar upward, the Russian rulers put over-riding priority on training of

more and better scientists and engineers. A new elite was born in the so-called classless society . . . the community of scientific researchers and technical managers.

First in science and engineering, first in heavy industrial expansion, first in armament production . . . this was the three-part formula of the strategy Stalin believed would bring his communist empire eventual mastery of the world.

In the false security of complacency, Americans have given the Russians no credit for any contributions to science, invention, or engineering. We believed they stole our secrets and copied our technology. This attitude was maintained when the first Russian A-Bomb was exploded in 1949, years ahead of the predicted time, and continued when their H-Bomb followed in 1953, only months behind ours. Then the first long-range Russian jet bomber became operational in 1955, once more ahead of schedule. Then came the ballistic missile tests in 1956 with a longer range than ours. Then operational IRBM's in 1957 while we had none. Sputnik I amazed the Western World, and then came Sputnik II with a doggie in the window and we hit the panic button.

Where Do We Go From Here?

The subsequent contortions that racked our once supine posture of defense must have had the Russians in high glee as we desperately lit our fuses in haste at Cape Canaveral in an effort to catch up. The fizzle that followed provided the Russians with the greatest propaganda coup they have ever been privileged to enjoy as we publicized our own failures for all the world to see. Thanks to our competitive military services, the one that was limited to short-range missiles finally used a Rube Goldberg contraption to put Explorer I in the sky. While we can't see it like the Sputniks, like the Sputniks its voice, too, has a German accent. So there it is and here we are, but where do we go from here?

Up until now, I have recorded some observations about education, manpower, industrial production, research and weapons, and comparisons between the U. S. A. and the U.S.S.R. Suffice it to say that the Herculean efforts the Soviets are putting forth in these categories of

(Continued on page 24)

Big Boom on For Barge Business

Illinois waterway traffic rose from 10 million to 23 million tons between 1947-1956; Expect bigger increase during next ten years

By

PHIL HIRSCH

IN 1946, U. S. barge lines moved approximately three per cent of the nation's freight; today they're moving about eight per cent. And with somewhat the same speed that impels bees toward honey, shippers are taking to the water in steadily growing numbers each year.

Chicago-area shippers are no exception. Between 1947 and 1956, the amount of cargo carried on the Illinois Waterway, which links the city with the Mississippi and the Gulf, rose from 10.1 million to 23.4 million tons. A number of experts believe this is only a curtain-raiser, however. During the next ten years, they say, waterway traffic should grow even faster than it has since World War II.

Reason for Optimism

One reason for their optimism is the Cal-Sag channel, the narrow, twisting little stream that connects the city with the upper end of the Illinois River. For years, the channel's many low bridges and narrow, 60 foot width have put a straitjacket around barge traffic moving in and out of Chicago. Now, the federal government, with an assist from local governmental agencies, has embarked on a multimillion dollar project which, by widening the channel and removing the bridge obstructions, will enable local shippers to cut their freight costs appreciably.

Here are a few examples which indicate the savings possible when freight is loaded into a waterway barge:

In April, 1957, Acme Steel Com-



In 1946, U. S. barge lines moved about three per cent of the nation's freight; today they are moving about eight per cent

pany floated 335 tons of hot and cold rolled steel products down to St. Louis from Chicago. The 360-mile trip took 96 hours, and cost \$2.75 for 1,000 pounds. The best rate that land freight carriers could come up with was \$3.90 for 1,000 pounds. Thus, through use of the waterway, there was a saving of approximately \$385.

About the same time, U. S. Steel sent 500 tons of bars, angles, corrugated and galvanized sheets from Chicago to Tampa, Florida, by barge. The cost was less than \$10 a ton. The land rate on these products from Birmingham, Alabama, the steel-producing point closest to Tampa, is more than a dollar a ton higher.

A brief look at waterway statistics makes it quite clear that barge transportation, although comparatively slow and although limited to large cargos, is still capable of accommodating a wide variety of products.

In 1956, for example, among the items handled by local barge lines were: animal feeds; canned foods and juices; table beverages; paints; glass; lumber and shingles; asphalt; coffee beans; castings and forgings; construction, electrical, and mining machinery; brick and tile; molasses; liquor.

More Bulk Loads

True, the tonnages were far less than those recorded for such bulk commodities as coal, grain, sand, and gravel. But barge-line operators believe that widening the Cal-Sag will permit them to carry substantially more finished and partly processed food, chemical, metal, and petroleum products than they have in the past. The present narrowness of the channel, and with it the inability to move a large number of barges in and out of Chicago economically,

(Continued on page 30)

WTTW — A New Approach To Telecasting

Chicago's educational TV station flourishing on limited budget

By

JUNE BLYTHE



Fine Arts Quartet performing on WTTW



Left to right: Dr. John W. Taylor, WTTW's executive director; Chicago's Mayor Daley; and Edward L. Ryerson, president of the Educational Television Association, look on as Carol Weise, six-year-old daughter of a station engineer, shows the new areas reached when the station boosted its power output from 55,000 watts to 270,000 watts

IF you're a television channel-jumper—and most of us are—know now that you're causing strong producers to feel faint, account executives to tremble, and the flow from sponsor check books to periodically run dry.

But at a modest suite of offices in Jackson Park, boasting two studios which could be dropped into a corner of one of the barn-like structures atop the Loop, you're a hero. Tucked into the east wing of the Museum of Science and Industry is the headquarters of Chicago's educational TV station, WTTW. Here the pundits of a new approach to telecasting would fear they'd failed if you stayed tuned to Channel 11 for any sizeable number of consecutive programs.

For, as one of the largest and most successful of America's 29 educational stations, WTTW deliberately does not aim at a mass audience. This is not to say that it ignores showmanship, or pitches its programs above the heads of average citizens.

Provides "Farm System"

On the contrary, as WTTW's executive director, Dr. John W. Taylor, emphasizes, educational television provides commercial programmers with a "farm system." From its ranks have come such top-flight programs and personalities as Dr. Frank Baxter, who started with "Shakespeare on Television" and now stars in network productions; Sonny Fox, who developed "The Finder" children's show, now seen on CBS outlets as "Let's Take a Trip"; and "The Children's Corner," which went to NBC.

By Federal Communications Commission edict, educational stations may not sell time or commercials, and the axiomatic concern of commercial TV with dollar cost per

viewer therefore does not apply. A direct consequence is that Channel 11 programs are planned and built with full consciousness that they may not appeal to all viewers — and that many programs will interest only a minority.

Channel 11's "owner" is the non-profit Chicago Educational Television Association, representing all segments of civic, educational, and cultural Chicago. The station's policy, asserts the Association, shall be to explore any "of the diverse fields of human endeavor."

"Eins, Zwei, Drei"

These diverse fields, as reflected in programming to date, range from the unexpected popularity of informal language teaching, as in the German series, "Eins, Zwei, Drei," to discussions-in-depth of current issues, or tips to camera fans. Even with its restricted (by budget) broadcast schedule of 4 to 10 p.m., Monday through Friday, plus the Chicago Sunday Evening Club, the station admirably fulfills its slogan, "Window to the World."

Among the most surprised observers of the station's growth in its little more than two years have been some Chicago businessmen. Edward L. Ryerson, president of the Educational Television Association and director of several Chicago firms, including the Inland Steel Company and Joseph T. Ryerson & Son, Inc., recalls:

"When we first approached businessmen for support, many of them said, 'You're crazy! TV's too expensive — you're talking about millions!'

"What they didn't understand was the difference between what we proposed to do and what commercial television does. We're not out to compete; we're not trying to sell toothpaste. We're trying to reach

(Continued on page 27)



"Adventures in Chemistry and Science," a WTTW program. Above, left: Edward Cavanaugh, research chemist for Armour and Company and host of the show, with Dr. A. L. Elder, director of research for Corn Products Refining Company

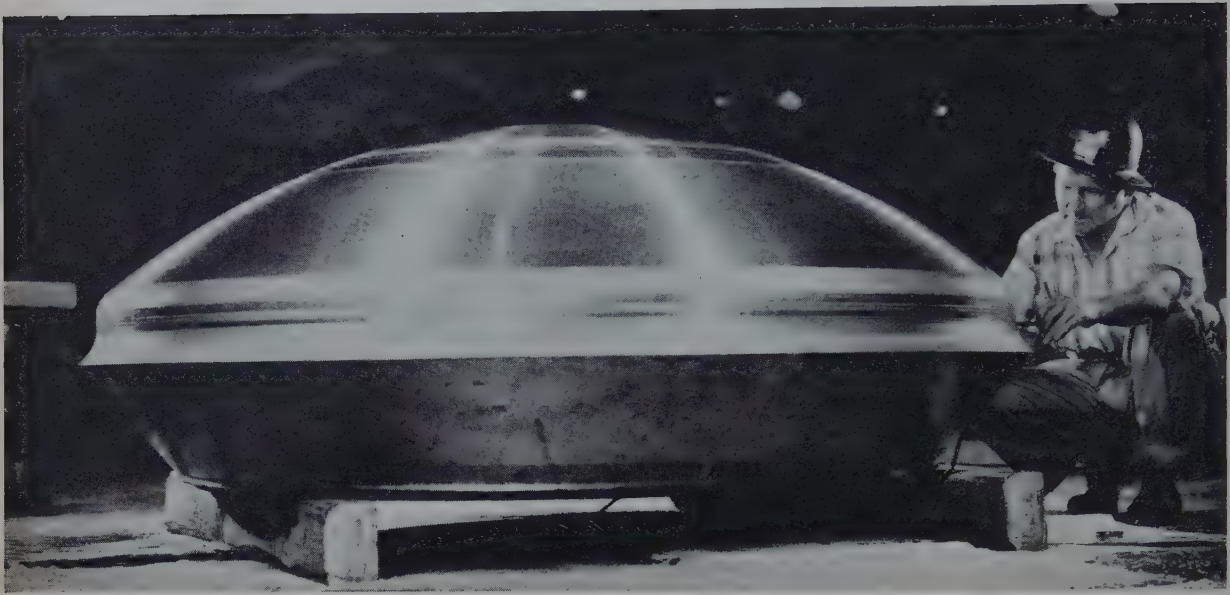


One of the station's newest programs is "Careers Unlimited," produced jointly by WTTW and the Chicago Association of Commerce and Industry



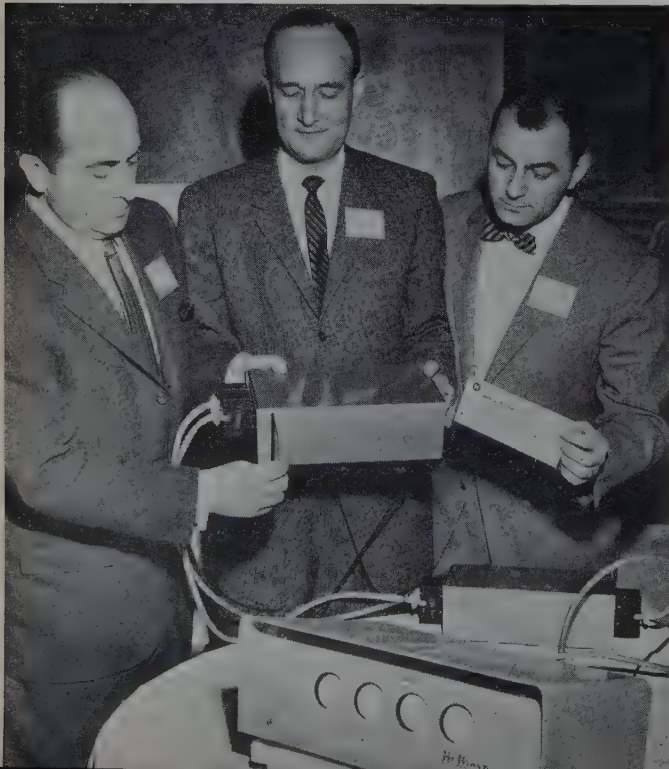
One of the station's top attractions is "Ticker Tape," a weekly discussion of investment and corporate affairs. Bill Clark, right, financial editor of the CHICAGO TRIBUNE, keeps the discussion moving at a good clip and steers it away from obscure technicalities

Business Highlights



This huge mushroom, 13 1/2 tons of specially alloyed steel, is the dome section of a nuclear reactor being completed at U. S. Steel's Homestead Works near Pittsburgh. Cast of manganese-nickel-molybdenum steel, the dome was reduced from a 48-ton forging by machining it to meet critical specifications. Destination is classified

Below: demonstrating the new, all-electronic digital display unit developed by the Semiconductor Division of Hoffman Electronics Corporation are (left to right), Maurice E. Paradise, executive vice president in charge of Midwest operations; Richard N. Golbach, division marketing vice president; and Richard White, division chief application engineer

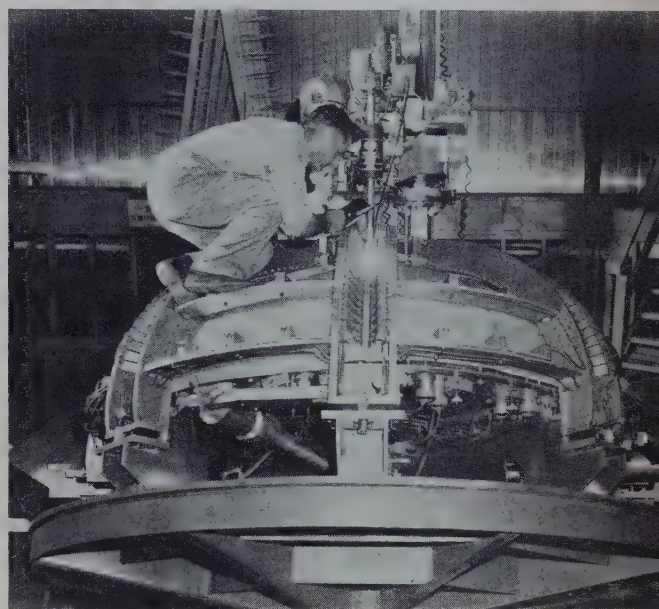


Above: G. W. Blossom Jr., president and board chairman of Fred S. James & Company, cuts the ribbon to officially open his firm's centennial exhibit, a special lobby display in the Chicago office featuring historical items from its 100-year history



Air view of New York Central's new Robert R. Young yard at Elkhart, Indiana. "Hump" is in foreground and 72-track classification portion of yard in rear. The \$14 million, fully automated yard classifies incoming trains at a two-car-a-minute clip, cutting 8 to 16 hours off transit time of freight

Below: a special fixture holds "orange peel" aluminum sections as they are automatically joined by Heliwelding, an inert gas arcwelding process. These sections form part of the fuel tank for an Air Force Intercontinental Ballistics Missile. It is the largest precision welding tool installation ever engineered in this country and was handled by the machine welding department of Air Reduction Company



Above: William V. Kahler, president of Illinois Bell Telephone Company, tries out a radio crystal set, one of the exhibits at the 1958 Chicago public schools Science Fair which will run April 10 through 13. Adrian Ender, 7th grade student, made the set. Left to right from Miss Ender are: Don McQuarrie, Farragut High science teacher, Gerald J. Connor, and Hildeberto Cantu. The models, foreground, were made by two eighth grade students, Cantu and McQuarrie

Below: wheel, showing roller conveyor, on Kolbe Excavating Wheel of The United Electric Coal Companies at its Buckheart mine. Material from the digging wheel flows on to the roller conveyor which discharges it to a belt conveyor. The new roller handles up to 100 per cent more material within the same discharge area through which the material passes



New "Break Through" In Automation



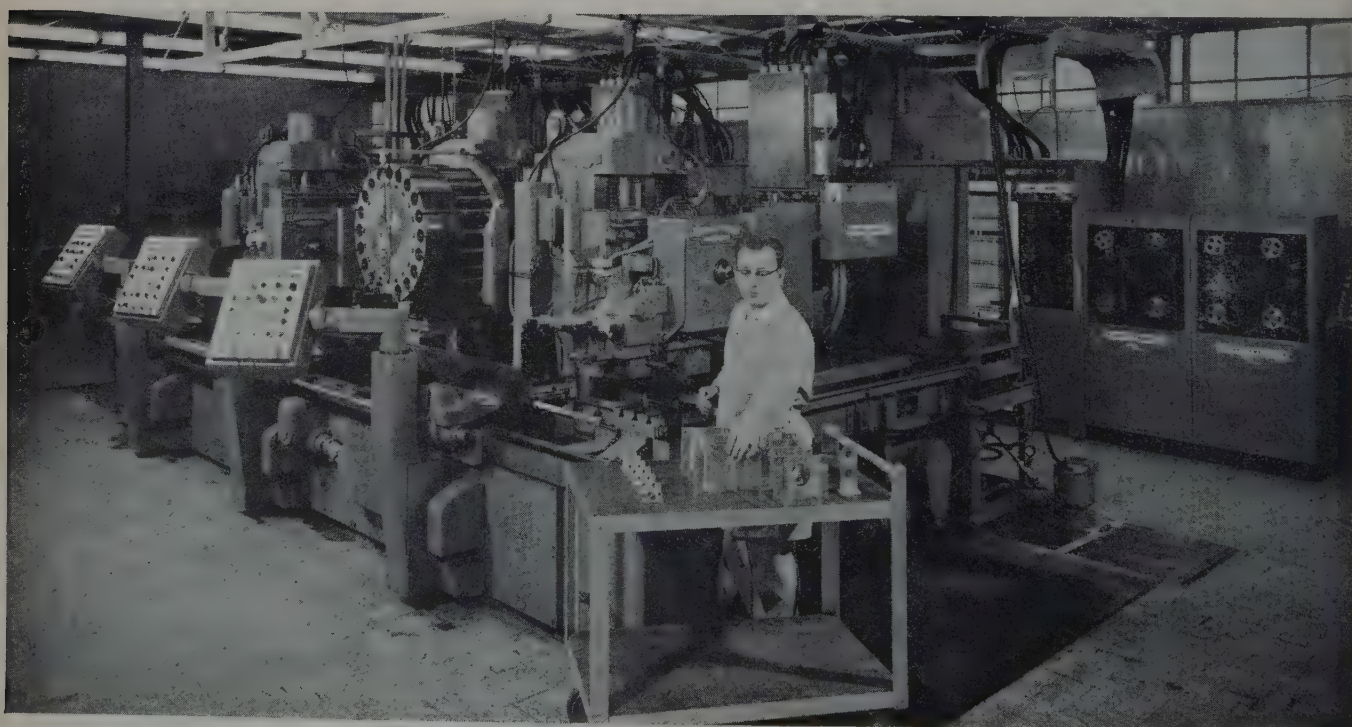
Mary Lou Foelker, Hughes typist, transcribes data from the planning sheet above the keyboard to punched tape. She was trained in one hour

By ALAN STURDY

THE nation's first all-electronically controlled line of machine tools, operated from punched tapes and controlled by transistorized digital computers, is now machining parts for the highly complex armament controls system of supersonic all-weather jet interceptors at the Hughes Aircraft Company's plant in El Segundo, California.

The line is made up of a milling, a drilling, and a boring machine. It is capable of performing a series of operations and making a variety of parts simultaneously. It is operated by one man who places the desired tape in the "reader" and the castings to be machined in jigs. From that point forward the entire operation is automatic, with the parts being machined, transferred and positioned by conveyor. The whole system receives its "orders" from the punched tape and the computers.

(Continued on page 24)



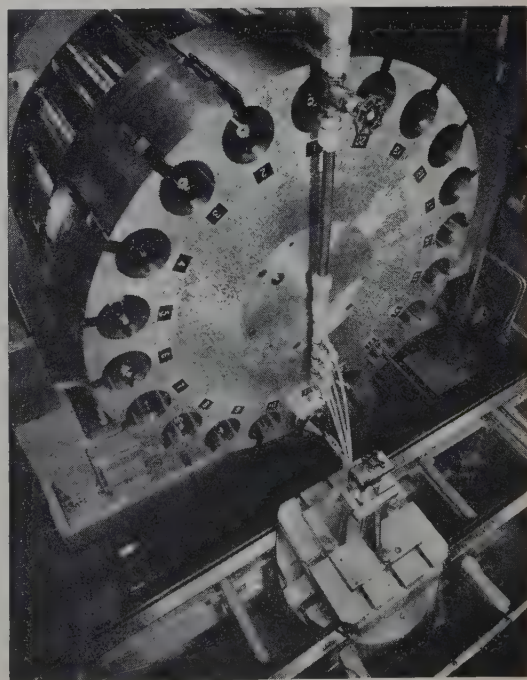
Overall view of the completely integrated line, with the milling, drilling and boring machines in the foreground. In background are the tape reader and digital computers which direct the machines. The technician is Sam Harris



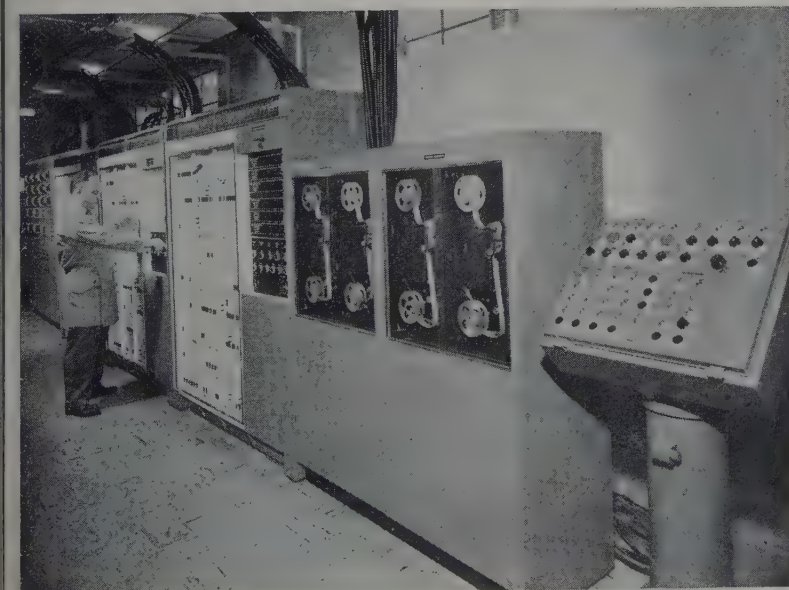
William Wagenseil, Hughes director of industrial systems and controls, here shows various parts which the automated line can produce simultaneously, each with its respective control tape



Heart of the "Digitape" system is this metal bar with a series of finely etched lines, 500 to the inch, which the small cylinder pickup head counts to position machine cutting edges. Accuracy is to one-thousandths of an inch



The "magazine" of the drilling machine is set up to offer 20 different drills, taps, reamers, etc. The appropriate one is chosen, positioned and operated from the tape



Closeup of the control system. At right is master control panel, then four tape readers and computer control cabinets for the boring, drilling and milling machines

Chicago's Industrial Expansion Story



Charles F. Willson

1,192 new plants or plant expansion projects
announced in five year period, 1953-1957

By CHARLES F. WILLSON

look at the extent of this industrial growth, its geographical distribution and its effect upon the people of the area.

Based on contract awards of \$100,000 or more, reported in Engineering News-Record and compiled by Commonwealth Edison Company, the metropolitan area of Chicago led all other metropolitan areas in the country in industrial growth in the post-war period. From July 1, 1945, to December 31, 1957, Chicagoland had \$1,351,328,000 in such contract awards, while its nearest competitor, Philadelphia-Camden, had \$718,450,000. In the number of contract awards Chicago had 621 compared with 231 for Los Angeles, its closest competitor by this measure.

Evaluating more recent developments by considering contracts of \$100,000 or more awarded during the past five years (1953-1957), Metropolitan Chicago has \$868,251,000 of new plants and expansions. The

Cleveland area was second to Chicago with \$321,726,000, followed by Philadelphia-Camden with \$264,115,000, Detroit with \$247,316,000, Baltimore with \$241,162,000, Houston with \$225,582,000, Los Angeles with \$195,536,000, New York-N.E. New Jersey with \$172,742,000, and San Francisco-Oakland with \$118,676,000. The number of such contracts awarded during this five year period were: Chicago—186; Philadelphia-Camden—70; Los Angeles—58; Cleveland—55; New York-N.E. New Jersey—55; Houston—46; Detroit—38; San Francisco-Oakland—38; Boston—35; and Pittsburgh—31. Chicago has not only set the pace for industrial growth since World War II, but in recent years has widened its lead over other major industrial areas.

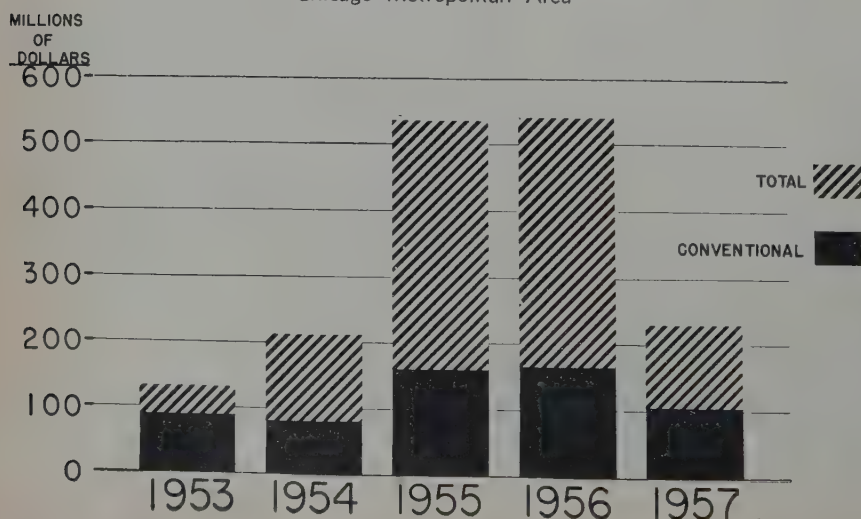
Keep Records for Area

The Chicago Association of Commerce and Industry, in order to measure industrial growth in Metropolitan Chicago, maintains a record of each industrial plant announced for this area. For the five-year period, 1953-1957, there were 1,192 announcements of new plants or plant expansions with a total investment of \$1,646,063,000. In each of the years 1955 and 1956, there was over half a billion dollars announced for such expansions. 1957 showed less than half this amount with approximately \$230,000,000. However, it exceeded the years 1953 and 1954, which had \$127,500,000 and \$212,000,000, respectively.

For the five year period under consideration, each project was classified by type of industry and

(Continued on page 36)

INVESTMENTS IN NEW PLANTS AND EXPANSIONS
Chicago Metropolitan Area





we're a big frog in the biggest puddle

Yes, **COMMERCE MAGAZINE'S** concentrated readership among Chicago's corporate and management executives makes it the leading local business men's publication.

1323 Owners and Partners, 131 Board Chairmen, 3121 Presidents and 1224 Vice Presidents make up half of the paid circulation. The balance consists of operating management men such as general managers, sales managers, traffic managers, etc. The total of 11,018 paid (ABC audited June 1957) is the proverbial "rifle shot" aimed at the heart of the industrial executive market in the Chicagoland area.

And the Chicagoland industrial area is truly the "biggest puddle." Since Pearl Harbor Day, 1050 new plants have been established here. This is the highest rate of industrial development in the country during that period.

Also, in the same period of time, Chicago's wholesale trade has shown an equally phenomenal growth — from \$4.2 billion to \$21.5 billion.

The general movement of industry into the Middle West combined with the Chicago area's new importance as a world port will generate an estimated 890,000 new jobs and a population increase of nearly two million by 1975. This will result in an increase in retail trade from \$4.2 billion to \$12.7 billion while the number of stores is expected to increase from the present 58,000 to 75,000.

Many companies are presently gearing their future sales programs to take advantage of these sure developments. If you, too, are looking to the future, you will want to direct more of your advertising and sales promotional effort to Chicago's industrial executives. Regular **COMMERCE** representation will do it — and it's economical too.



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C'mon in . . . the water's fine!



Published by The Chicago Association of Commerce and Industry since 1904

"Break Through" In Automation

(Continued from page 21)

Development of the controls system, which has been named "Digitape," was launched by the Industrial Systems and Controls Division of Hughes Products in April, 1955. In January of 1956, Kearney and Trecker Corporation, Milwaukee machine tool builder, was asked to join in the project to develop and produce the necessary machine tools.

Single machine tools have been electronically controlled in the past in mass production operations. The "Digitape system" was specifically designed "to make available for the first time the economies of 'Detroit' type mass production techniques in the area of small lot production which now constitutes most of the machining done by American industry," according to Roland M. Russell, Hughes vice president.

The integrated machine line is constructed on the "building block" principle. Both machines and controls are constructed to be fitted together in any desired number and arrangement. The line can also be

added to or re-arranged from time to time if changing circumstances require. Other advantages seen for the system are:

1. Tapes can be punched by a typist after only a few hours of special instruction.

2. The required precision is built into the line and controls, thus less operator skill is needed.

3. "Set-up" operation is virtually eliminated, saving labor and time. Material handling is reduced to merely loading and unloading.

4. Tooling is, on the average, 50 per cent less, saving tool design and tool production time, thus shortening time between engineering drawing release and actual production.

5. Several different parts may be manufactured on the line simultaneously. Changes can readily be made in the product, even during a production run (often by simply splicing a change into the tape).

6. Spare parts and re-orders may be quickly and economically produced at a time subsequent to the

main production run with the same quality and uniformity of the original. This reduces the need to maintain inventories.

7. Simple dial adjustments may be made to correct variations in cutting edge dimensions.

Production designs of both the controls system and machines are scheduled to be ready for delivery during 1958. Kearney and Trecker will represent the Hughes interests in marketing the controls system, which will also be made available to other machine tool manufacturers and to manufacturers in other fields.

Business Leadership

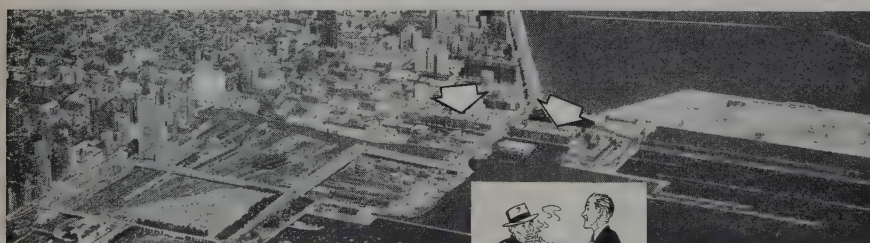
(Continued from page 14)

endeavor are fast closing the gaps between us, have caught up with us, or have gone ahead. These are cold hard facts and should motivate us all to "run scared" as we have never run before.

In evaluating the position of commerce and industry at this moment, we desperately need new ideas, new approaches to old problems and a new realization that we face a formidable competitor with tremendous potential advantages. Commerce and industry must plan a new strategy of greater scope than ever before realized if our national strategy is to take the offensive in an all-out cold war.

Some of these new areas of responsibilities for business involve ideology, economics, communication, freedom, organization, free enterprise, and, yes, politics. The voice of business must be sounded loud and strong in new areas where it has not been heard before. Because American commerce and industry is the physical manifestation of capitalism and free enterprise, it mirrors more than anything else the American way of life to the world at large. The image it creates can be a powerful force in our national strategy. What are some of the new areas in which it can be effective?

First, it must sell the profit and loss system at home because it is not understood as it should be, and particularly by our revenue department. An expanding industrial capacity, enlarged programs of research, accelerated rates of depreciation to



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compensate for obsolescence, special concessions for risk-taking in foreign investments, and weapon development are all elemental factors in tax revisions that need profound consideration and action if we are to maintain and regain our supremacy in research, education and weapons. Individual initiative also needs some encouragement from the tax department.

Do you realize that parents struggling to educate their children and students working their way through school are the only persons who cannot make tax deductions for their tuition payments? They can deduct scholarship and educational contributions for others as legitimate expenses but for themselves, self-help is forbidden. We just haven't done our homework on lots of basic problems like these which we proclaim are vital to our survival. In a profit system there must be profit if we are to fulfill our responsibility. We've been discussing these problems for years but we just haven't been heard. Maybe Sputnik will help us.

Awareness of Impressions

Second, we must alert ourselves to greater awareness of the impressions we create as tourists or businessmen engaged in world trade while on display in foreign countries. It is our physical presence, actions and attitudes which reflect the American way of life and make friends or create enemies through our actions. With billions invested abroad, American business has long been engaged in the most extensive economic aid program in world history . . . and it has done this at a profit to the countries in which its plants are located, and to itself. This tremendous program of helping people help themselves in foreign countries has won more friends for the U. S. A. than all of our government-sponsored aid programs, and it hasn't cost the American taxpayer a cent. We need more of this. Trade, not aid, should be our watchword.

In this way we can build profitable trade relationships that will display the American ideology at its best, strengthen the economies of underdeveloped countries, assure ourselves of a continuing source of vital raw materials, demonstrate the superiority of our system over the Soviet system, and build lasting

friendship based on mutuality of objectives and self respect. To do this, we must have an enlightened long-range foreign trade policy that is part of our national strategy, and openly administer it for all the world to see and understand. This requires improved communications at home and abroad so that vital issues are evaluated objectively and decisions are made in the national interest so that they will win friends throughout the world.

Third, we must win back the freedoms that we have been giving up to big government and big unions. The accelerating attrition of the

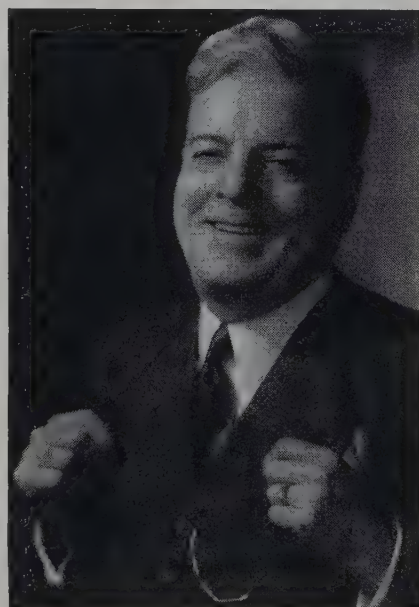
precious right to management, to manage, is strangling decision making by American executives. The need for flexibility to meet changing conditions rapidly and to compete aggressively is essential to the free enterprise system. To win back our rights and to manage our own businesses profitably requires political action the likes of which commerce and industry has never seen or enjoyed. This, too, is part of the national strategy for survival.

Fourth, we must re-evaluate the things that have made America the most successful nation in history. Business needs to explain itself and

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its benefits. We need a Vice President for American Ideas and Idealism. We need to bolster the barriers to Communism, like religion, nationalism, and a strong middle class. We need a new appreciation and respectability for profits and private initiative. We cry out for a limitation of big government and a reversion to the original American concept of government function which will take government out of all those activities which best can be handled by private business.

Let's trade "Big Brother" back for "Uncle Sam" . . . more distant relatives are less inclined to move in on you. Let's put capitalism back into our business vocabulary, and let's cut taxes so that we have some capital to put back into our free enterprise system to strengthen our economy, to maintain full employment, to improve our standard of living, and to keep us on the offensive.

Get Organized

And, finally, let's get organized — first to function, and then to operate efficiently. Government has grown so big, so complicated and so expensive (30 per cent of our income goes into government) that it has become inefficient and wasteful . . . and, paradoxically, this has happened in the most efficient environment in the world.

We have become so addicted to super organizations that the patent solution to all our problems seems to be the superimposition of a new super-duper agency over existing organizations to integrate, correlate, and dictate all activity into a regimented mass of dynamic inertia. While we extoll the merits of our

free, enterprising, competitive system, at the same time we recommend that we cure the ills of the military by putting all the services in one uniform, one program and one command. This approach to cover up weakness in organization is like a heavy snow on a muddy field. It looks clean and smooth on top and hides the mess below but when the snow melts, as it always does, the mess is worse than ever. Let's be realistic and start anew, from the ground up, observing the principles of management, organization and operation which American business has so well demonstrated so successfully.

Industry Will Measure Up

In the present missile crisis let no one doubt that industry will fully measure up. It always has and always will in war, and this is the threat of war. Russia's Sputniks have stirred the business community as nothing has since Pearl Harbor. No doubt the Kremlin already regrets its blunt and unmistakable warning, for American businessmen are in a fighting mood. They will not only accept but will urgently demand whatever burden of taxation may be required to put the United States once more out in front of Russia.

Likewise, in the new crisis in education, industry will measure up. It will accept in full the challenge thrown down by the Soviets in the fields of engineering and technology. At every educational level, from the high school up through the center of advanced learning and research, business will accept an additional financial burden to make possible

the raising of the standards of teaching and a more intensive search for exceptional talent.

Moreover, in doing all this, industry will keep its head. It will not become science-blind in the midst of the current hysteria. It knows that understanding of the physical properties of matter cannot by itself solve all the problems of production or materially advance the cause of peace. The world of ideas is still the most demanding test of our capacity for training young men and women in the duties of citizenship, and our times cry out for broadly educated leadership in every field.

But the disconcerting thing about business is that while it will react immediately and violently to a dramatic and obvious threat to our national security, like a satellite in the sky, it may ignore for a dangerously long time a challenge that is subtle in its manifestations or remote in time as to its impact. It is thus as to the Soviet economic threat as distinguished from the military. The Kremlin has put no satellite into the commercial sky. The Russians have not dramatized for the leaders of American industry their skillful penetration of the new countries, or the shrewd and effective efforts they have put forth to draw into their sphere of influence the tremendous potential natural resources and the vast future markets of those regions.

Soviet Tradesmen

Soviet bloc tradesmen are everywhere these days. One by one they are attacking key areas, sometimes in Asia, sometimes in the Middle East, and now in Africa and South America, as they scent promise of success. They have many trading advantages. They have no hesitancy, for example, to sell below cost, if by so doing they can advance their political objectives. They are willing to extend long-term credits at interest rates as low as two per cent. The machinery and equipment which they offer lack chrome but are rugged and simple to operate and are often better suited to conditions in primitive areas than ours. When it comes to recruiting trained engineers and technicians who will take up residence in the far-off places of the world to train the local workmen,

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the Soviets have no problem. Ivan goes where Ivan is sent. And, when he goes, he speaks the language.

How can free enterprise compete with all this? How can we match this global effort to pre-empt markets and to corner the still-undiscovered deposits of gold, uranium, iron ore, bauxite, petroleum, and manganese, which we will surely need in the decades that lie not far ahead? Surely not by imitating Soviet methods. State trading is not the American way, nor is the public ownership of raw materials. The answer must be found within the scope of private initiative and private investment, through a cooperative approach to the problem by business and government. Time is of the essence, and we need to bring into play immediately the full creative resources of our dynamic free enterprise system.

Lift Horizons

In short, the present world crisis speaks to the businessman in compelling tones, demanding that he lift his horizons and seek to understand the distant scene. The Sputniks have revealed to him with startling clarity that what happens on the far

side of the world today may pose a direct security threat to his home and to his factory. He must now see that a new economic policy put into effect on the far side of the world may likewise have direct impact upon the industrial future of our whole country, including his business.

The economy of the United States can no longer safely be roadblocked off from that of the world. Those smug days are gone forever. What happens in the new and uncommitted countries with respect to internal development and commercial alliances may become desperately important to the United States in the future, and it is a part of industry's job to have the same enlightened interest in these broader problems that it has in those of its immediate area.

The lesson of contemporary history is that free enterprise must either learn to live in the world or risk being engulfed by it. Our response to the challenge of the future rests in our minds and wills . . . to capitalize on our proven strengths . . . to meet new competition. If we out-perform the Soviets we will out-live them. They will destroy themselves trying to outdo us in peaceful co-existence.

WTTW—New Approach to Telecasting

(Continued from page 17)

selected audiences, but groups that are very important to the community."

Today, Channel 11's unique approach to the needs of business and industry has so far tipped the scales of opinion that the biggest portion of its financial support now comes from the business community. Its first \$400,000, raised with much diligent doorbell ringing, came from more than 300,000 contributors.

Chalmers Marquis, WTTW's director of program development, explains the station's services to business this way: "We act as the communications arm for other agencies or associations. The voice of a community's businesses and industries is just as valid as the voice of educational institutions."

A case in point is one of the station's newest programs, "Careers Unlimited," produced jointly by

WTTW and the Chicago Association of Commerce and Industry, in cooperation with representative companies.

One of the Chicago area's greatest needs is for more adequate training among young people entering the job market. As the area's diverse commerce and industry continue to expand, as well as advance technologically, not only will more employees be required, but they will have to be better prepared and possess higher skills.

"Careers Unlimited" aims precisely at the audience which can benefit most from this realization, young people in high school or the first two years of college. The program makes its point by taking audiences right into Chicago plants and offices, interviewing employees on the job as well as company officers.

On Tuesday nights, 9:30 to 10 p.m., two high school newspaper edi-

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tors and Robert Cunningham, the CACI's public relations director, visit a key company. At the Hotpoint Company, for example, the trio talked with president John C. Sharp, an electrical engineer; the chief industrial designer; a home economist; and people in sales, advertising and personnel work. All were asked about their previous educational training and experience, as well as the nature of their jobs. A look at Hotpoint's expansion plans offered clues to future job possibilities.

Ensuing programs have investigated telephone systems and equipment manufacture, through Automatic Electric Company; radio and TV broadcasting and such related areas as advertising, through WGN and WGN-TV; insurance, at the Continental Casualty Company; food retailing and chain store management, at Jewel Tea Company; job finding, through the Illinois State Employment Service; work in the field of peaceful uses of nuclear energy, through Argonne National Laboratory; commercial film careers, through Bob Atcher Film studios; and careers in advertising, the North Advertising Company.

Employee Education

Another unique service to business, which it would be uneconomic or unsuitable to attempt on commercial television, is "Operation Job Training." Here the pioneering techniques of Channel 11's TV College, for the Chicago Board of Education, are being turned to employee education.

Marquis reasoned that television could extend both the quantity and quality of on-the-job training. Classes for foremen, for instance, instead of operating independently in each company, could be telecast to hundreds of companies with some of the financial savings used to improve the quality of the teaching and variety of demonstration materials.

WTTW mailed a description of the program idea and a questionnaire to about a thousand companies having over 100 employees. Some 70 companies not only responded, but indicated they would support such a series. Over half asked for courses in human relations, business letter writing, creative thinking, effective speech, supervisor development,

(Continued on page 34)

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Industrial Developments

... in the Chicago Area

PLANT investment projects in the Chicago Metropolitan Area announced in March fell slightly below the figure recorded in 1957. The total for March, 1958, was \$14,984,000, and for March of 1957 the total amounted to \$15,554,000.

The cumulative total for the first three months in 1958 amounted to \$41,599,000 compared with \$56,236,000 in 1957.

Types of projects covered by these reports include new and expanding plants and acquisition of land or buildings for industrial development.

• **Olin-Mathieson Corporation** has purchased a 40-acre site on the Illinois Waterway southwest of Joliet for the erection of a new plant for its Forest Products Division. The new structure will contain 200,000 square feet of floor area and will be used for the manufacturing of fibre board containers. The division headquarters are at West Monroe, Louisiana. The plant will be the first in the Chicago area for this division. F. H. McGraw and Company, engineer; Campbell-Lowrie-Lautermilch Corporation, general contractor.

• **Argonne National Laboratory** will construct a large technology center for the development of plutonium as a nuclear power fuel. It will be equipped to handle not only highly radioactive plutonium but also for research in uranium, thorium and other metals for nuclear power reactors. The laboratory is located just across the river from the suburban town of Lemont, and is operated under contract with the A.E.C. by The University of Chicago. The new center will be housed in a 220,000 square foot building erected near the center of the large area occupied by the laboratory in the southeast corner of Du Page County.

• **Jewel Tea Company** is erecting a 210,000 square foot addition to its warehouse and plant in Melrose Park. The company plans to go ahead with a large expansion program which will be serviced by the Melrose Park warehouse and bakery. The expansion will be completed by the end of the summer. A. Epstein and Sons, Inc., architect and engineer; Fred Titlebaum Construction Company, general contractor.

• **National Wax Company**, 1300 W. Division street, is erecting a new 47,000 square foot building on Touhy avenue near Central Park avenue. The company manufactures waxes from petroleum by-products. Ragnar Benson, Inc., general contractor.

• **Campbell Soup Company**, 2550 W. 35th street, will erect a new large warehouse and freezer building adjacent to its present plant. A. Epstein and Sons, Inc., architect and engineer.

• **Physicians Record Company**, 161 W. Harrison street, printer and publisher of medical record forms and medical text books, has started construction of a 60,000 square foot building located at 3600 S. Ridgeland avenue, Berwyn. Anderson and Novak, architect and engineer. The company will relocate its entire operation to the new plant when completed.

• **Kentile, Incorporated**, 4532 S. Kolin avenue, is adding a warehouse structure containing 40,000 square feet of floor area to its plant which manufactures asphalt and vinyl floor tile. A. Epstein and Sons, Incorporated, architect and engineer.

• **Whiting Corporation**, Harvey, manufacturer of heavy industrial machinery, has acquired a 40-acre



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tract of land about a mile south of its main plant for use for future expansion. The land is in the southwest corner of 167th street and Lathrop avenue, in an area which is now unincorporated, adjacent to Harvey. It is planned to have Harvey annex the property.

• **United States Steel Corporation** is adding a chemical laboratory structure to its South Works located at 83rd Street and the Lakefront. The new structure will be erected inside of the plant and the operation will be moved from its present location of 83rd and Mackinaw avenue. The structure was designed by Naess and Murphy, architect and engineer; it will be erected by the American Bridge Division of U. S. Steel Corporation.

• **Sheet Metal and Conveyor Company**, 1804 S. Kilbourn avenue, a steel fabricating company, is erecting a new plant containing 33,000 square feet of floor area at 2025 N. 15th avenue, Melrose Park. The structure will have a 35 foot high ceiling and many modern innovations for a plant of this type. Klefsstad Engineering Company, engineer.

• **Wille Tool Corporation**, 4638 N. Ravenswood avenue, manufacturer of special machinery, tools and dies, has acquired a 54,000 square foot site at the southeast corner of Linder and Fargo avenues in Skokie. The site is located in Edens Industrial Park. Carl T. Roman, broker.

• **Import Motors of Chicago, Inc.**, is erecting a new 42,000 square foot building on a large site west of Edens Highway in Northbrook to handle

wholesale parts business for its foreign car Midwest distribution system. The company is now located at 1511 E. 71st street. The new warehouse is planned for completion at the end of the year and will contain the company's offices.

• **Knowles Electronics, Incorporated**, 9400 W. Belmont avenue, Franklin Park, manufacturer of component parts for the electronics industry, is opening a branch plant built for it at 10545 West Anderson Place in Franklin Park. The company will employ 200 to 250 people.

• **Mohawk Tablet Company**, 1703 E. End avenue, is adding 32,000 square feet of floor area to its plant which manufactures commercial and institutional paper products. Thulin, Woods and Isensee, architect.

• **Hitchcock Publishing Company** in Wheaton will erect a new industrial and office building on Geneva road West of Gary avenue in Wheaton, which will contain 29,000 square feet of floor area. Robert E. McCracken, architect; C. R. Jernberg and Associates, Inc., general contractor.

Trends In Business

(Continued from page 10)

ence of the apparel brand from that of the department store or specialty shop that sells it. Survey results indicated brands dominated the purchase of certain items (shoes, hats, shirts, raincoats and work clothes) and are less important in the case of ties, socks, underwear, suits, sports coats and overcoats.

The study showed that most men

wish they had more clothes. However, only a very small number of them plan clothing purchases far in advance of the shopping trip, and most men lack a systematic plan of purchase. When asked whether they set aside money for clothing, only 16 per cent answered in the affirmative.

Personal comfort is a basic notion in the appeal of clothes to men. This personal comfort includes physical comfort — the kind that comes from the way clothes fit on a man. It also includes the comfort a man gets from fitting into his work or social situation, as well as a certain amount of comfort through self-gratification. Results of the Tribune survey also indicated men aren't style conscious. Most of them are conservative; they don't want to be identified with fads; and they don't want other men to regard them as persons who are overly concerned with apparel styles. However, this doesn't mean men are unwilling to wear new clothes, if they feel the clothes are right for them.

Boom For Barges

(Continued from page 15)

prevents them from doing much more than servicing the needs of their volume customers.

A number of special barges, tailor-made to fit the requirements of specific chemical, petrochemical, and food products, have been developed by the barge industry in recent years. By giving the shipper built-in protection against changes in temperature, pressure, or both, barge-line operators have eliminated one of the big barriers preventing use of the waterway by more than a handful of industries. Today, on the Illinois River and other links in the inland waterway system, many commodities are being transported which once were considered inherently unsuited to this form of transportation.

Among these are ammonia, propane gas, liquid sulfur, liquid styrene, liquid caustic soda, wine, asphalt, and sulphuric acid. In 1956, on the waterways as a whole, 1.7 million tons of liquid sulphuric acid were shipped, and more than 2 million tons of other industrial chemicals. The flexibility of modern waterway transportation is indicated by the fact that the liquid sulfur is kept at a constant temperature of

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350 degrees F. while in transit, while another commodity handled on the waterways — liquid methane — needs a temperature of -258 degrees F. Anhydrous ammonia, meanwhile, is put into special tank barges under a pressure of 250 psi.

Besides increasing the diversity of their cargos, barge operators have been improving service steadily. For example, cargoes can now be loaded into a barge at Chicago for delivery to Tampa, Fla., which is quite a distance from the nearest inland waterway. Special "sea barges," fitted with water-tight cargo covers, are used. After being pushed down to New Orleans in a conventional tow, they're pulled across the Gulf to Tampa. Among the products being shipped via this route is sludge from Chicago's sewage plants; it's used in Florida as a soil additive. On the return trip, the barges carry phosphates for Chicago's chemical industry. Both U. S. Steel and Inland Steel have shipped metal products to Tampa via barge, cutting transportation costs substantially in the process.

Traffic Rose 220%

Between 1947 and 1956, total barge traffic on the 29,000 miles of navigable streams comprising the nation's inland waterway system rose from 34.5 billion ton miles to 109.5 billion ton miles, an increase of 220 per cent. The only carriers that equaled this rate of growth during the same period were the nation's truck lines.

The standard size barge used on the Illinois waterway before World War II was 26 feet wide and 175 feet long. Today it's 195 by 35 feet and carries $1\frac{1}{2}$ times as much cargo — 1,500 tons compared with 1,000 tons. Towboat horsepower has grown considerably, also. One local operator, typical of the others, reports that although he now has only one more boat than in 1946, "the total horsepower of our fleet today is at least double what it was at the end of the war."

Officials of another local barge line report that since they've installed radar, their tows are tied up only half as often by bad weather. Radio and radiotelephone communication, meanwhile, permit the towboat captain to pick up loads that materialize while he is en route.

Often, the barge flotilla is only a few hours away from a shipper's dock when he sends his order in. In the old days, the tow would have passed right by because there was no way for the dispatcher to inform the captain in time. The load often sat at the shipper's dock for days until it was picked up by another tow.

Improvement of the Cal-Sag, by making it possible to move more waterway cargo into and out of Chicago, should permit a greater number of local shippers to profit from these improvements in equipment and service. The project consists, basically, of widening the existing 16 mile Cal-Sag channel from 60 to 225 feet, raising or removing 42 railroad and highway bridges to provide sufficient vertical clearance for bigger, more powerful tow-boats. Completion of this construction job is scheduled for 1962. Afterward, it is planned to: a) widen and deepen the Grand Calumet River, which links East Chicago and Gary with the Cal-Sag, b) widen the ten-mile stretch of the Chicago and Sanitary and Ship Canal between Joliet and the western end of the Cal-Sag, from 160 to 225 feet.

Cost of the entire job will be about \$200 million, according to estimates made in 1956. About half of this amount will go into part one of the project, improvement of the Cal-Sag. Nearly two-thirds of the money will be supplied by the federal government, the rest by state,

city, county, and other local governmental bodies.

Widening of the Cal-Sag will mean that river tows can be brought all the way into Chicago as a unit. Now, when they reach the upper end of the river, just below Joliet, each tow — which usually consists of a flotilla of eight barges pushed by a towboat — has to be broken up. Only two, or occasionally three, barges at a time can be brought the rest of the way into Chicago.

Cut Costs

By telescoping four trips into one, barge operators will cut costs appreciably. Also, it should be possible to cut the time of each run below the eight to 16 hours required now. With a wider channel, two tows headed in opposite directions will be able to pass each other in midstream. Now, because the channel is so narrow, tows frequently must park at "passing places" — wide spots that provide the necessary passing room — until the channel ahead is clear. The magnitude of the savings possible when this bottleneck is removed is indicated by the fact that it costs something like \$1,000 a day to keep a typical towboat running.

Despite the congestion, traffic through the Cal-Sag has been increasing steadily. In 1946, it amounted to 1,093,788 tons. By 1956, it had grown to 5,688,337 tons.

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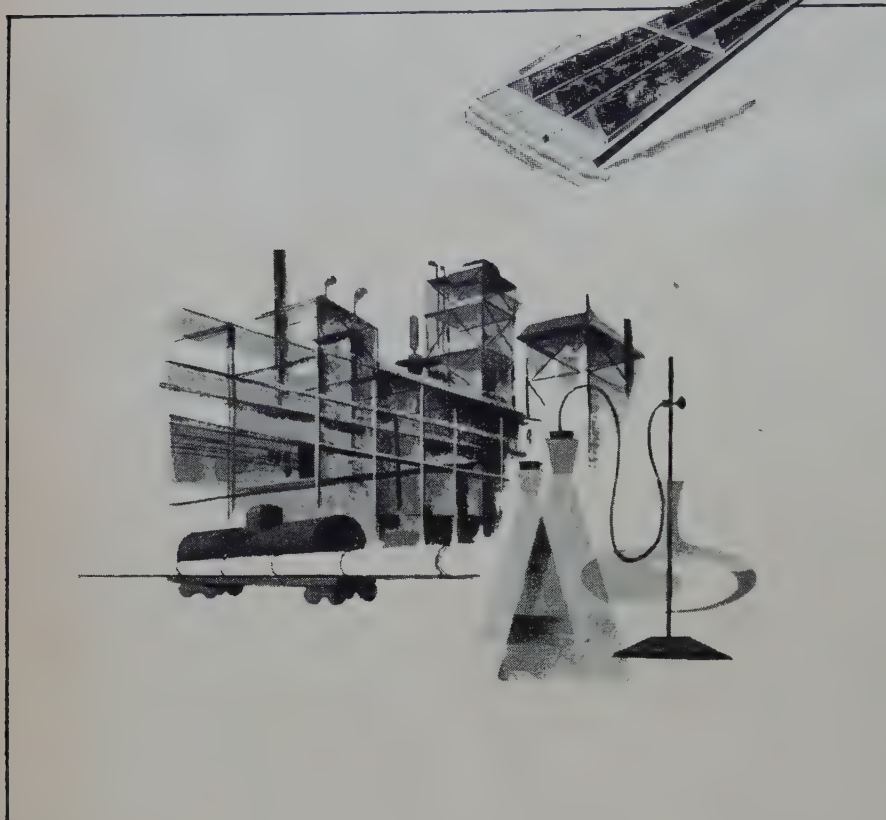
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indicative of the channel's tremendous potentialities. Within five years after completion of the project now underway, it is conservatively estimated that close to 12 million tons a year will pass through the channel, and that ultimately the traffic may reach 18 million tons or more annually," adds the U. S. Corps of Engineers, which has administrative control over the Cal-Sag and all other U. S. navigable waterways.

Most barge operators believe that opening of the St. Lawrence Seaway will increase their traffic potential in the Chicago area significantly. Although they have some reservations about the volume of freight that can be exchanged by barges and ocean-going vessels, they think that the new industries brought in by the Seaway will generate a great deal of water-borne commerce. For the most part these industries will need large quantities of basic raw materials, it is pointed out, an area in which barge transportation has thoroughly established itself.

The large-scale movement of industry to waterfront locations in recent years has already done much to increase waterway traffic in this area. In the next few years, barge operators expect to get even more tonnage from the same direction.

Here, There and Everywhere

(Continued from page 9)

Effective April 1 the painters' rate was increased from \$3.47½ to \$3.50 per hour plus a ten cents per hour pension contribution. Effective June 1 the asbestos workers will increase from \$3.55 to \$3.75 per hour and a five cents per hour pension plan established. On June 2 the plumbers wage rates will be increased from \$3.53 to \$3.73 per hour according to the building Construction Employers Association of Chicago, Inc.

• **Mislabeled Motor Oil** — Used oil sold as new can be detected by new infrared analytical method developed by Armour Research Foundation of Illinois Institute of Technology. While virgin oil is refined from only one or a small number of crude oils, reclaimed oils may contain an assortment of crudes. Infrared rays detect the number of crude sources in oil; statistical analysis of infrared spectra of virgin and reclaimed oils discriminates between them.

Transportation and Traffic



THE Central States Freight Bureau has petitioned the Interstate Commerce Commission to institute a general investigation into the reasonableness and lawfulness of motor common carrier class and commodity rates, rules, regulations and practices relating thereto applicable to the transportation of property between points in Central territory. The petition states that the motor carrier industry in Central territory was in a precarious financial position, but could not effectuate a general rate increase because of "flag outs." Pointing out that increases in rates were proposed in September, 1957, to strengthen the financial condition of the carriers, the petition said: "Four months later no actual increases have been published and there is grave doubt if they can be published. Carriers have 'flagged' 131,670 class rates and 2,201, or 40 per cent, of the commodity rate items published in petitioner's tariff. If publication should be made, or could be made, with the 'flagged' rates as stated above it would not produce adequate revenue relief and would further increase the confusion, discrimination and preference now existing in motor carrier rates in Central territory. The conditions stated above make it impossible for motor carriers operating within this territory voluntarily to correct and eliminate the existing destructive rate-making practices or to effect a general increase in their rates and charges sufficient to cover the tremendous impact of increased operating and maintenance expenses." The bureau asserts that it is not requesting a "continuing minimum rate order" and expressed its belief that if all motor common carriers in the territory were required to establish rates, rules, regulations and charges on a level determined by the commission to be just, reasonable and lawful, that a "uniform

and stable rate structure, free from unjust discrimination and preferences, will be established. . . ." Later a carrier could file rates lower or different than ordered by the commission subject to possible suspension, the Bureau explained.

• **Procedural Dates in Rail Rate Increase Case Postponed:** The Interstate Commerce Commission has agreed to postpone the dates for filing verified statements and for hearing and argument in Ex Parte No. 212, Increased Freight Rates, 1958. The postponed dates for the filing of verified statements are as follows: In support of petitioners or respondents, from March 25 to April 21; in opposition to or not in support of petitioners or respondents, from April 22 to June 9; and in rebuttal of evidence previously submitted, from May 6 to July 12. Parties desiring to cross-examine witnesses filing verified statements in support of petitioners should so advise the commission and opposing counsel on or before May 12. Hearing for the purpose of such cross-examination will be held May 19. Request to cross-examine witnesses filing verified statements in opposition to or not in support of petitioners should be submitted to the commission on or before June 30. Hearing for this purpose will be July 7. Persons desiring to cross-examine witnesses filing verified statements in rebuttal of evidence submitted should so notify the commission on or before July 28. Hearing for the purpose of such cross-examination will be August 4. All of the hearings will be held in the Washington, D. C., offices of the commission, before Division 2, beginning at 9 A.M., U. S. Standard Time or 10 A.M. Daylight Saving Time.

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in Parcel Post Rates: The Postmaster General has released details of proposed increases in rates on fourth-class mail amounting to about six percent on parcel post and 5.7 percent on catalogs. The present level of fourth-class mail rates became effective October 1, 1953. Request for consent to establish increased rates, in accordance with the procedure that has been in effect since 1951, was originally filed with the Interstate Commerce Commission on April 18, 1957, in the proceeding assigned I.C.C. Docket No. 32158. According to notice in the Federal Register, available information on which the proposed increases are based may be obtained from the Assistant Postmaster General, Bureau of Finance, Post Office Department, Washington 25, D. C., upon request.

• **Supreme Court Finds State Law Regulating Section 22 Rates Unlawful:** The United States Supreme Court has upheld a ruling of a federal district court which found unconstitutional a California law requiring approval by the state's Public Utilities Commission of reduced transportation rates to the

government negotiated under Section 22 of the Interstate Commerce Act. A dissenting opinion was written by Justice Harlan in which he was joined by Chief Justice Warren and Justice Burton. The law was passed in 1955 by the California legislature after a group of motor carriers alleged in a petition that the federal government was the largest single intrastate shipper and that the unreasonably low rates afforded it was causing chaotic conditions in transportation. A suit was subsequently filed in the federal district court by the U. S. government charging that the regulation of rates on the movement of military traffic was unconstitutional in the absence of an act of Congress. The high court's opinion was handed down in No. 23, Public Utilities Commission of the State of California v. United States of America.

• **Motor Carrier Rates to East to Be Increased April 5:** Tariffs have been published by Eastern Central Motor Carriers Association increasing class rates between Central territory and the eastern seaboard, effective

April 5, 1958. On truckload shipments the class rates are boosted 12 per cent over the rates in effect on February 9, 1957. On less truckload shipments weighing under 5,000 pounds the increase will be 11 per cent over the rates in effect on February 9, 1957. No increase will be made in less truckload rates on shipments weighing 5,000 pounds or more.

WTTW

(Continued from page 28)

fundamental economics, and conference leadership.

The first such course, Fundamental Economics, just wound up a successful ten-lesson schedule, presented at 4 p.m. on alternate Wednesdays, by the Henry George School of Social Science. Economics won the first try partly because so many companies asked for it, partly because the School had experience with employee education in this subject.

Meeting in company offices, usually half on company time, discussion groups of no more than 15 watch a televised lecture-demonstration by James MacRae, of the Henry George staff. From 4:20 to 6 p.m. they explore, with the help of a discussion leader, the information MacRae has presented.

Response to this first series has far exceeded expectations, reports John Monroe, the Henry George School's director. At the Belt Railway Company of Chicago, of 100 personnel offered the course, 60 registered for it. At Flick-Reedy Corporation, the number of registrants resulted in three separate study groups—two groups for foremen and one for quality control engineers. Employees of Accountants Arthur Andersen & Company signed up to gain greater understanding of what's behind the figures with which they work.

Both credit and non-credit courses are being developed for future series by universities and other professional institutions, and include supervisor development, industrial relations, communications, human relations, self development, and business letter writing. The Adult Education Council of Greater Chicago will coordinate instruction.

Dr. Taylor likes to describe Channel 11's purpose as a dual one of

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"educational television" and "televised education." Operation Job Training, like the TV College, falls in the televised education category, with instruction, however glamorized, as its goal.

Business and industry share also in Channel 11's educational television schedule—that portion of the programming beamed to more general audiences. One of the station's top attractions is "Ticker Tape," a weekly discussion, Thursdays from 8 to 8:30 p.m., of investment and corporate affairs. The Central States Group of the Investment Bankers Association of America presents panels of experts, who may discuss a single company or kind of industry, or a broad investment area, such as municipal bonds. A new TV personality has emerged in William Clark, financial editor of the Chicago Tribune, who keeps the discussion moving at a good clip and steers it away from obscure technicalities.

The show pulls 600 to 1,200 letters a week, a record many a commercial program might envy. Women are well represented in the Ticker Tape audience, some reporting that they meet in groups each week to view the show and then discuss what they have learned. Amateur investment clubs, too, frequently are heard from.

Popular Pamphlet

The most popular pamphlet offered, says Bill Clark, was the simple, factual "Ten Point Guide to Investing," prepared by the Securities and Exchange Commission and reprinted by the Investment Bankers, proof that the show is on target in its effort to interest and inform lay audiences. In fact, telephone response when the series started a year ago so swamped Channel 11's switchboard that extra lines had to be installed.

Other indices of wide audience response have been chalked up by shows like "Totem Club," daily children's program hosted by Joe Kelly, formerly of the Quiz Kids. A recent Totem Club contest brought 13,000 entries in eight weeks. Commercial audience surveys report up to 300,000 viewers for programs like "Children Growing," on Tuesday nights, by Maria Piers, consultant to the Child Care Program of the Institute for Psychoanalysis; "Time for

Religion," Wednesday night series presented by Chicago religious groups of all faiths; and single programs like the recent Alistair Cooke interview with Frank Lloyd Wright and Carl Sandburg.

But perhaps the most significant programming for Chicago's future is TV College, offering two full years of accredited college courses, and financed by the Chicago Board of Education and the Fund for the Advancement of Education. Now in the second year of a three-year experiment, the courses have attracted up to almost 3,000 credit students in a semester, and over 8,000 non-credit. Commercial surveys report an average of 14,000 sets tuned to the courses, which are offered twice, for both daytime and evening viewers.

As president of the University of Louisville, Dr. Taylor pioneered the first college credit courses on commercial radio and TV. He is convinced that television offers one effective means for tooling up our educational capacity to meet the swelling waves of students threatening to inundate our schools.

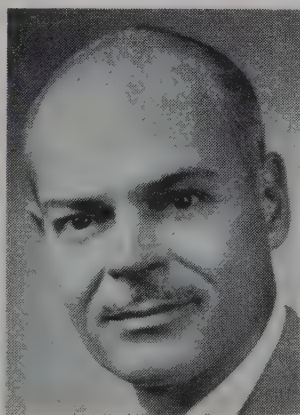
Research indicates television does

at least as good a job on the lecture-demonstration aspects of instruction as the teacher in a classroom. Dr. Taylor contends further that TV can stimulate improvement in instruction. "Given two teachers of equal ability," he says, "the one who can spend several hours preparing for three half-hour weekly lessons on the air will do a better job than his colleague with a 15-hour teaching load on campus. Also, we can afford to pay the teacher more."

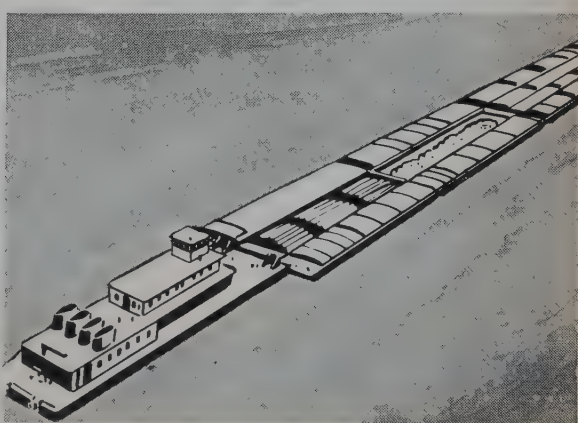
New Classrooms Required

The current 15,000 enrollments in Chicago's five Junior College branches may well reach 40,000 in 15 years. Conventional teaching techniques will require around \$50 million in new classrooms. Comments Dr. Taylor, "If 20 per cent of them were handled by television (and I don't know why we should assume only 20 per cent), we could save over \$10 million that we do not now have." He adds, with characteristic humor, "Educational TV is going to save us things we can't get anyway!"

"Within this decade," Dr. Taylor



Norman C. Horn

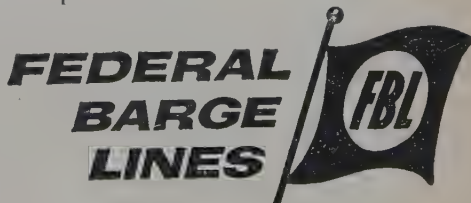


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predicts, "we're going to be asked for so much time by the schools that the shoe will be on the other foot. The schools may turn to low-power, closed channel UHF transmission. Another answer may lie in multiplex transmission. Radio engineers have learned how to transmit as many as 12 messages simultaneously, and now multiplex can be applied to television to permit two different programs on the same channel at the same time."

Behind every civic venture stands one or a group of persons who pushed it to realization. For WTTW, that man is Edward L. Ryerson. Chicago's colleges and universities had been discussing the station even before FCC's reservation of educational channels. "But they realized the idea was too big for the schools to handle alone," relates program manager James Robertson, "and John Rettaliata (president of Illinois Institute of Technology) approached Mr. Ryerson. He's a man of proven public conscience, and while he didn't think it up, he's the reason the station is here."

Mr. Ryerson has been president and/or director of a host of Chicago civic, cultural, and welfare groups, in addition to a long list of public services performed at the state, national, and international levels. He says, "I'd been mixed up in a good many public things, especially in the health and welfare fields. What really appealed to me was the notion that here, in an educational TV station, was an effective and econom-

ical medium that could do something for all of the agencies I'd been trying to help support."

Under his leadership, the station has raised \$1.5 million, of which roughly a third has gone into necessary equipment. Annual cost to the community in proportion to total budget has steadily decreased, dropping from \$315,525 for 1956-57 to \$236,000 for 1957-58. This year the community is being asked for another \$105,000 beyond operating expenses, or a total of \$340,000, to pay for high power equipment and needed studio expansion. The FCC approved a boost in WTTW's operating power from 55,000 to 275,000 watts, and its signal now reaches about 70 miles.

The station also has almost doubled its own earnings, through its contracts with the Chicago Board of Education; through sale of filmed programs to the Educational Television and Radio Center at Ann Arbor, Michigan; and through kine-scope film recordings for various other organizations.

But when the typically tired businessman reaches home, perhaps the most appealing feature of this station that is dedicated to being different is its nightly Window to the World of Music. Starting at 5 p.m., for at least an hour and sometimes two, depending on TV College, WTTW broadcasts good recorded music with no visual program at all! What other station could afford to turn off its cameras and urge its audience to relax?

Industrial Expansion

(Continued from page 22)

coded for location. A tabulation was then made to determine the amount invested by industrial classification in the respective geographic areas with Metropolitan Chicago.

Geographically, the City of Chicago was broken into four areas: Central, North, West, and South. Central is the area within Fullerton Avenue (2400 north), Kedzie Avenue (3200 west), and Cermak Road (2200 south). West is the area immediately west of Kedzie between 2200 south and 2400 north. South is Chicago's area south of 22nd Street and North is the area north of Fullerton.

Cook County, outside of the City of Chicago (or the suburbs) was

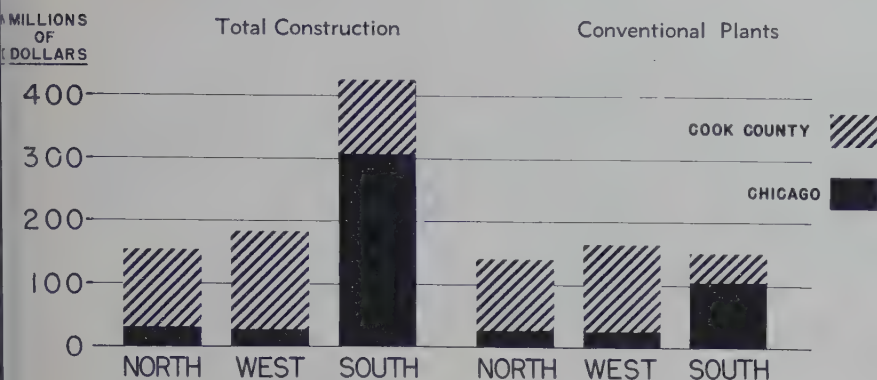
divided as follows: Western Cook County is considered to be the area containing the communities adjacent to and between the Burlington Line on the south, and the Milwaukee Line on the north. North is the area extending from the Milwaukee Line around to Lake Michigan, and south is the area extending from the Burlington Line south and east to the Indiana State Line.

A computation of investments in each of the six counties which constitute the Metropolitan Area of Chicago was also made. The five counties in Illinois are Lake, DuPage, Kane, Will and Cook; and in Indiana — Lake County.

In addition to total investments,

INVESTMENTS IN NEW PLANTS AND EXPANSIONS — 1953-1957

(Cook County including Chicago)



tabulation was made of conventional type manufacturing plants. This was done by excluding investments in primary metals, petroleum, and chemical operations. While these three groups are basic and many of the area's other operations depend on them, they are, nevertheless, in a class by themselves, constructionwise. Keeping this consideration in mind gives more meaning to the geographic location of Chicago's new production capacity.

Total investments in Cook County for the five year period amounted to \$794,706,000 or 48.3 per cent of the \$1,646,063,000 for the entire metropolitan area. Lake County, Indiana, with heavy investments in primary metal and petroleum installations, came in a close second with \$701,372,000 or 42.6 per cent. Will County was third with \$68,794,000 or just 4.2 per cent, less than one-fifth of investments announced for either Cook County or Lake County, Indiana. Lake County, Illinois, Kane County and DuPage County follow in that order with investments of \$34,529,000 (2.1 per cent), \$32,635,000 (2.0 per cent) and \$14,027,000 (0.9 per cent).

When conventional type manufacturing plants are considered (investments in all plants other than primary metals, petroleum, and chemicals) an altogether different picture appears. Cook County winds up with 80.7 per cent of the conventional type plants with investments of \$491,528,000 and Lake County, Indiana, with 42.6 per cent of total plant investments has only 4.5 per cent of the conventional type manufacturing plants represented by \$27,664,000. Kane County is second to Cook County in construction of conventional plants with \$32,245,000 or

5.3 per cent. Lake County, Illinois, had \$26,017,000 or 4.3 per cent in conventional type plants followed by Will County with \$20,715,000 for 3.4 per cent and DuPage County with \$10,927,000 or 1.8 per cent.

Lake County, Indiana, received 72 per cent of the announced investments in steel expansions and the south side of Chicago and adjacent suburban areas in Cook County received 26 per cent. This means that 98 per cent of the \$792,730,000 invested in new primary metal facilities in the past five years were made in the southern part of the metropolitan area of Chicago.

Petroleum Production

Investments in facilities for products of petroleum and coal, totaling \$129,165,000 follow the general pattern of primary metals, with 70 per cent of such investments made in Lake County, Indiana, 18 per cent in southern Cook County and 8 per cent in Will County.

Cook County got 50 per cent of the investments in chemicals and allied products, over two-thirds in the southern part of the County. Will County received 32 per cent of these new plants and Lake County, Indiana, 11 per cent. Investments in this category totaled \$115,172,000.

The Association's analysis shows contrary to the impression held by many people engaged in plant location that very substantial investments in new plants have been made in Chicago's south side.

Our analysis shows that of the total investment in industrial buildings within Cook County, from 1953 to 1957 inclusive of \$759,442,000 (excluding Central Chicago with \$35,264,000) 55.8 per cent were made

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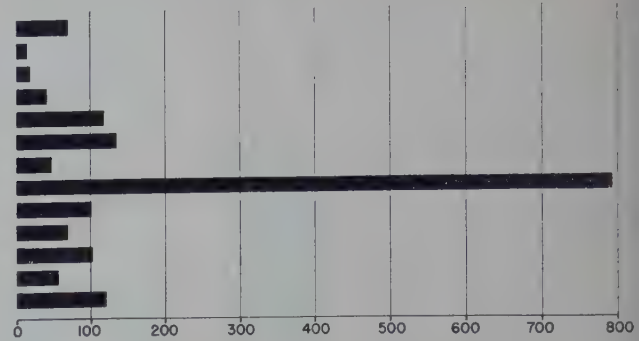
south of Cermak Road in Chicago and the Burlington Railroad line in the suburbs. Western Cook County got \$182,454,000 or 24 per cent and northern Cook County \$153,322,000 or 20.2 per cent. When the City of Chicago alone is considered, the south side takes an even more striking lead with 75.4 per cent of the \$402,954,000 total. Central, north and west follow with \$35,264,000 (8.8 per cent), \$31,890,000 (7.9 per cent) and \$31,777,000 (7.9 per cent). Cook County outside the City of Chicago limits shows the west first with \$150,677,000 or 38.5 per cent of the \$391,752,000 invested in all types of plants in suburban Cook County. The northern suburbs are second with \$121,432,000 or 31.0 per cent followed by south with \$119,653,000 or 30.5 per cent.

When investments in conventional

INVESTMENTS IN NEW PLANTS AND EXPANSIONS — 1953-1957

Chicago Metropolitan Area

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type manufacturing plants are considered, a somewhat different pattern of distribution develops. Instead of southern Cook County having 55.8 per cent of investments as is the case when total construction is considered, it has 33.3 per cent of investments in conventional type plants or \$152,000,000. Western Cook County leads with \$165,521,000 or 36.2 per cent with north having \$139,508,000 or 30.5 per cent.

But when Chicago alone is considered, 53.1 per cent of \$104,269,000 of the new construction has been on the south side. Central Chicago had \$34,509,000 (17.6 per cent), north, \$29,765,000 (15.2 per cent) and west, \$27,657,000 (14.1 per cent).

There are several reasons why greater industrial expansion has been occurring on the south side of Chicago, with the predominant one

being that less than two per cent of available industrial land in the city lies north of Madison Street.

In concluding our analysis of plant location, 46.7 per cent or \$137,864,000 of the conventional type plants built in Cook County outside the Chicago limits during the five year period 1953-1957, were located in western suburbs. Northern Cook County outside the city got \$109,743,000 or 37.1 per cent of the new plants and Southern Cook County got only \$47,731,000 or 16.2 per cent.

Because of a shortage of industrial sites within the City of Chicago, manufacturers desiring to locate in a northerly or westerly direction have been forced to acquire land in suburban areas north or westward. Because land is still available within the city on the south side a similar pattern has not yet been established in that direction.

Except as it relates to people, industry has no meaning. Industry is a wealth producer and in addition to having a profound effect upon our lives by the items it produces, it dictates substantially where we shall live. Among industrial development people, it is a generally accepted principle that workers seek out jobs or in other terms that industry draws labor. Some serious errors have been made by manufacturers who have moved to depressed areas to take advantage of the labor supply. Generally, depressed areas are that way because of deficiencies.

What effect has the location of plants in the metropolitan area of Chicago had upon where people within this area live?

In July, 1956, according to the Chicago Community Inventory, University of Chicago, Phil Hauser, Director, 6,106,000 persons were living in metropolitan Chicago compared

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with 5,495,000 in April, 1950 (U. S. Census). This is an increase of 611,000 or 11 per cent, which by any measure is phenomenal growth. In effect, we're adding a city the size of Gary, or almost two Oak Parks, each year. Where are these people finding places to live?

A quick look at population statistics gives the answer. Even in this day of mobile labor force, the worker tends to locate near to his job. Excluding the City of Chicago, Gary, Indiana, was the community which grew the most during this period. It had a population increase of 35,000. Lake County, Indiana, with its expanding steel base had an increase in population of 76,800 or almost 3,000 per year.

Chicago's northern suburbs, an area which had virtually no industrial base during World War II, but shortly thereafter began to develop, since has had an amazing industrial growth. In the six year period from 1950 to 1956, the communities of Morton Grove, Niles, and Skokie almost tripled, rising from 22,300 to 55,200 population, an increase of 32,900. This also is an area in which many new plants were located. Other towns in the area have likewise felt the impact of new manufacturing operations located in or near their communities.

Mr. Hauser points out some other interesting facts in his study. During the period 1950-1956, the City of Chicago increased from 3,621,000 to 3,745,000 — 124,000 new residents or about 3 per cent.

The metropolitan ring — defined as Cook County, except Chicago, and DuPage, Kane, Lake, and Will Counties in Illinois, and Lake County, Indiana — increased from 1,874,000 to 2,361,000, a gain of 487,000 residents or 26 per cent.

About 61 per cent of Metropolitan Chicago's 1956 population were residents of the City of Chicago. In April 1950, the figure was 66 per cent.

Though primarily a residential

community, with little industry, DuPage County experienced the most rapid growth percentage-wise among the counties, with an increase from 155,000 to 230,000 residents. This is a 49 per cent increase.

Lake County, Illinois, experienced a 31 per cent increase (179,000-234,000 = 55,000); suburban Cook County a 27 per cent increase (888,000-1,125,000 = 237,000). Population increases of from 10 to 20 per cent occurred in Lake County, Indiana, and Kane and Will Counties, Illinois.

Only one suburb showed a decrease in population — Oak Park. Such old and fully developed towns as Berwyn, Cicero, and Evanston experienced very little population growth.

New People

Where did all these new people come from? Of the 611,000 new to the entire area, 506,000 are accounted for by excess of births over deaths. The remainder, 105,000, were in-migrants. Percentage-wise this is 83 per cent and 17 per cent, respectively. Contrary to what some may think, in-migration into the Metropolitan Area of Chicago has remained, on an average, about constant since 1940.

The average annual change in population for the City of Chicago and the metropolitan ring for the period 1950-1956 was 20,000 and 78,000, respectively. A breakdown of the annual average population changes is shown in the table below.

It is evident that the Metropolitan Area of Chicago has a mobile people, and that most of our new arrivals come by delivery and not by train or bus.

Chicagoland has made tremendous strides in the past years and is laying the foundation for future growth and progress. What is there to hinder our continued leadership as the Nation's Capital of Industry?

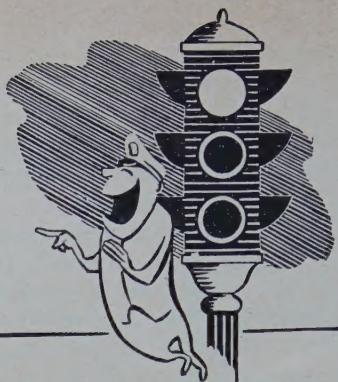
	Total	Natural Increase	Net Migration
Metropolitan Area	98,000	81,000	17,000
White	60,000	64,000	-4,000
Non-White	38,000	17,000	21,000
Chicago	20,000	42,000	-22,000
White	12,000	28,000	-16,000
Non-White	32,000	14,000	18,000
Ring	78,000	39,000	39,000
White	72,000	36,000	36,000
Non-White	6,000	3,000	3,000

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Federal Barge Lines, Inc.	35
<i>Batz-Hodgson-Neuwoehner Adv. Agcy.</i>	
Graf, L. J., Construction Co.	27
Grobark, John, & Co.	27
H W Sandblast Co.	30
Haines Co., The	38
Harrington, J. J., & Co.	29
Huffman, Robt. V.	31
Hyre Electric Co.	28
<i>George H. Hartman Co.</i>	
Inland Steel Co.	1
<i>Edward H. Weiss & Company</i>	
Kiwi Coders Corp.	36
Lou Steel Products Co.	37
Maxant Button & Supply Co.	36
<i>H. A. Hooker Advertising Co.</i>	
North Pier Terminal	24
<i>The Arbogust Co.</i>	
Peoples Gas Light & Coke Co.	I.B.C.
<i>Needham, Louis & Brorby, Inc.</i>	
Personnel Laboratory	36
Revere Electric Supply Co.	I.E.C.
<i>Frederick C. Williams & Associates</i>	
Stock Yard Inn	25
Taft Contracting Co.	29
Talcott, James, Inc.	8
<i>Doremus & Co.</i>	
Truax Traer Coal Co.	34
<i>F. E. Flottman Co.</i>	
United Air Lines, Inc.	2
<i>N. W. Ayer & Son, Inc.</i>	
United Electric Coal Companies	32
<i>C. Franklin Brown, Inc.</i>	
United States Steel Corp.	6
<i>Batten, Barton, Durstine & Osborn</i>	

Stop me...If...



In bringing the change from \$2 for a \$1.45 check, a dining car waiter gave the patron a half dollar and a nickel.

The patron fumbled for a moment, and then picked up the half dollar and left the nickel.

"You should use better judgment," said the patron. "You should have brought two quarters."

"Boss," said the waiter, "let us say I gambled and lost."

Golfer: "I'm anxious to make this shot. That's my mother-in-law up on the clubhouse porch."

Friend: "Don't be a fool, you can't hit her from here. It's 200 yards."

A backwoods community had a reputation for not keeping its ministers for more than three or four months. Finally the bishop sent a young preacher, and after two years he was still on the job.

Surprised, the bishop pressed for an explanation.

Finally, a local townsman replied: "Well, I'd rather not tell you; but if you insist, here's the reason: We folks out here don't really want any preacher at all, and he's the closest we've come to it."

"Bobby," said the teacher sternly, "do you know that you have broken the Eighth Commandment by stealing James' apple?"

"Well," explained Bobby, "I might just as well break the Eighth and have the apple as to break the Tenth and only covet it."

Wife: "What do you mean coming home half drunk?"

Husband: "It wasn't my fault. I ran out of money."

Over age masher: "Hello there, Cutie—where you been all my life?"

Cutie: "Well, for the first half of it I wasn't born."

Personnel director: "No, I can't give you a job . . . I've had so many applicants I can't remember their names."

Applicant: "Can't you give me a job keeping track of them?"

Secretary on coffee break: "Well, my boss' dictation isn't too bad, but I do have to take a lot for granted."

A man threw a quarter towards the blind man's cup. The coin missed and rolled along the pavement, but the man with the dark glasses quickly recovered it.

Man—"But I thought you were blind?"

Beggar—"No, I am not the regular blind man, sir. I'm just taking his place while he's at the movies."

The fifth grade teacher had taken her pupils for a trip through the Museum of Natural History. "Well, Son," asked little Jimmy's father, "where did your teacher take you this afternoon?"

"Huh," replied Jimmy disdainfully, "she took us to a dead circus."

The retiring usher was instructing his youthful successor in the details of his office. "And remember, my boy, that we have nothing but good, kind Christians in this church—until you try to put someone else in their pew."

St. Peter—"Here is your golden harp."
Newly arrived American—"How much is the down payment?"

A little boy wanted \$100, so he decided to pray for it since everyone said he should. He prayed every night for two weeks—still no \$100; so he decided to write God a letter. A postal official received it but didn't know where to send it, so he forwarded it to a Congressman. The Congressman read the letter and told his secretary to send the boy \$5. When the boy received the money, he was delighted and wrote God another letter thanking Him for prompt reply. The letter read:

"I noticed that you routed your letter through Washington. As usual, they deducted 95 per cent."

Freshman: "What'll we do tonight?"
Sophomore: "We'll toss a coin. If it's heads, we'll get dates; if it's tails, we'll go to the movies alone; and if it stands on edge we'll study."

A minister thought he could offset his careless memory by a member of the congregation and, after the amenities, confided that he always had trouble with her name. Was it spelled with an "e" or an "i"?

"With an 'i,' sir," was the cold reply. "It's Hill!"

A gangling young man walked in to the clerk of the court and announced he wanted a marriage license.

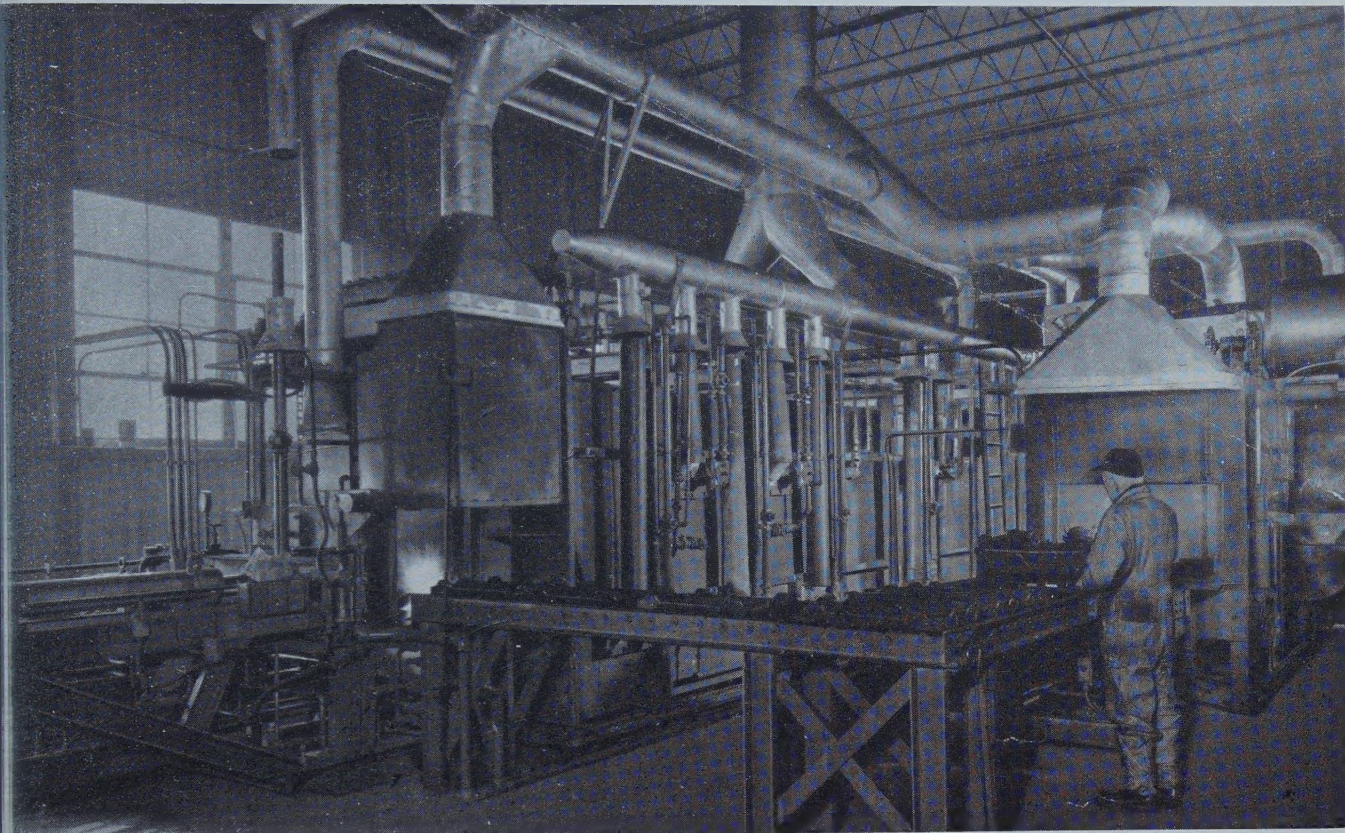
Clerk—"Certainly. Where is the bride-elect?"

Young man—"What do you mean bride-elect? There warn't no election. The girl appointed herself."

Nowadays a husband and wife either have to have minds that run in the same channels or two television sets.



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INDUSTRIAL DEPARTMENT

THE
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LIGHT AND COKE COMPANY



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And so were 50,000 starry-eyed boys and girls and grownups. For the fifth year the Miracle of Books Fair sponsored by the Children's Book Council, the Museum of Science and Industry, and the Chicago Tribune drew capacity attendance.

Enchanted youngsters thrilled over meeting favorite authors and illustrators. Bashfully shook hands with costumed storybook characters. And lost themselves in the colorful displays of some 3,000 children's books.

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as many Chicagoans turn its pages as turn on the average evening TV show. And the Tribune was the *only* Chicago newspaper to show a gain in total daily net paid circulation during the six months ending September 30, 1957, over the same period in 1956.

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